U.S. DEPARTMENT OF COMMERCE
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ASSESSMENT OF MATHEMATICAL MODELS FOR STORM AND COMBINED SEWER MANAGEMENT

APPENDIX F: SELECTED COMPUTER INPUT AND OUTPUT

BATTELLE PACIFIC NORTHWEST LABORATORIES,
RICHLAND, WASHINGTON

AUGUST 1976

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Mathematical models for the nonsteady simulation of urban runoff were evaluated to determine their suitability for the engineering assessment, planning, design and control of storm and combined sewerage systems. The models were evaluated on the basis of information published by the model builders and model users. Seven models were also tested by computer runs using both hypothetical and real catchment data. Most of the models evaluated include the nonsteady simulation of the rainfall-runoff process and flow routing in sewers; a few include also the simulation of wastewater quality, options for dimensioning sewerage system components, and features for real-time control of overflows during rainstorms.

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SELECTED COMPUTER INPUT AND OUTPUT

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FOREWORD

The Environmental Protection Agency was created because of increasing public and government concern about the dangers of pollution to the health and welfare of the American people. Noxious air, foul water, and spoiled land are tragic testimony to the deterioration of our natural environment. The complexity of that environment and the interplay between its components require a concentrated and integrated attack on the problem.

Research and development is that necessary first step in problem solution and it involves defining the problem, measuring its impact, and searching for solutions. The Municipal Environmental Research Laboratory develops new and improved technology and systems for the prevention, treatment, and management of wastewater and solid and hazardous waste pollutant discharges from municipal and community sources, for the preservation and treatment of public drinking water supplies, and to minimize the adverse economic, social, health, and aesthetic effects of pollution. This publication is one of the products of that research; a most vital communications link between the researcher and the user community.

The objective of the study described herein was the evaluation of comprehensive mathematical models for the nonsteady simulation of urban storm and combined wastewater flow and quality. It is hoped that the application of appropriate models will aid in the cost-effective design and improvement of urban wastewater collection and treatment systems.

Francis T. Mayo
Director
Municipal Environmental Research Laboratory

ABSTRACT

Mathematical models for the nonsteady simulation of urban runoff were evaluated to determine their suitability for the engineering assessment, planning, design and control of storm and combined sewerage systems. The models were evaluated on the basis of information published by the model builders and model users. Seven models were also tested by computer runs using both hypothetical and real catchment data. Most of the models evaluated include the nonsteady simulation of the rainfall-runoff process and flow routing in sewers; a few include also the simulation of wastewater quality, options for dimensioning sewerage system components, and features for real-time control of overflows during rainstorms.

This report was submitted in fulfillment of Contract No. 68-03-0251 by the Water and Land Resources Department, Battelle Pacific Northwest Laboratories, under sponsorship of the Office of Research and Development, U.S. Environmental Protection Agency. Appendix F - Selected Computer Input and Output - is a supplement to the main report "Assessment of Mathematical Models for Storm and Combined Sewer Management." Work was completed in August 1975.

APPENDIX F

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INTRODUCTION

Examples of computer input and output are given for each of the following seven models which were tested with hypothetical and real catchment data:

1. Battelle Urban Wastewater Management Model
2. Dorsch Hydrograph-Volume Method
3. Environmental Protection Agency Stormwater Management Model
4. Massachusetts Institute of Technology Urban Watershed Model
5. Metropolitan Sanitary District of Greater Chicago Flow Simulation Program
6. SOGREAH Looped Sewer Model
7. Water Resources Engineers Stormwater Management Model

The input and output examples are selected from computer runs which include the following simulations:

1. large hypothetical catchment, 0.1% slope, dry condition, 2-hr triangular rainstorm;
2. small hypothetical pipe with upstream storage and downstream diversion, 0.5% slope, 2-hr triangular inflow, all three inflow concentrations (if modeled).

The output, in most cases, is self-explanatory. Reference to the respective user's manuals is needed in some instances where output data categories are identified by abbreviations and to identify input data categories. It was not within the scope of this study to duplicate the user's manuals to provide all details required for input and output interpretation.

BATTELE URBAN WASTEWATER MANAGEMENT MODEL

INPUT DATA LISTING FOR HYPOTHETICAL CATCHMENT SIMULATION

1 CATCHMENT
20

1	CATCHMENT1	11.48	1	0	0	1	3	
2	CATCHMENT2	11.48	1	0	.25	1	3	
3	CATCHMENT3	11.48	1	0	.50	1	3	
4	CATCHMENT4	11.48	1	0	.75	1	3	
5	CATCHMENT5	11.48	1	0	1.00	1	3	
6	CATCHMENT6	11.48	1	0	0	1	3	
7	CATCHMENT7	11.48	1	0	.25	1	3	
8	CATCHMENT8	11.48	1	0	.50	1	3	
9	CATCHMENT9	11.48	1	0	.75	1	3	
10	CATCHMNT10	11.48	1	0	1.00	1	3	
11	CATCHMNT11	11.48	1	0	0	1	3	
12	CATCHMNT12	11.48	1	0	.25	1	3	
13	CATCHMNT13	11.48	1	0	.50	1	3	
14	CATCHMNT14	11.48	1	0	.75	1	3	
15	CATCHMNT15	11.48	1	0	1.00	1	3	
16	CATCHMNT16	11.48	1	0	0	1	3	
17	CATCHMNT17	11.48	1	0	.25	1	3	
18	CATCHMNT18	11.48	1	0	.50	1	3	
19	CATCHMNT19	11.48	1	0	.75	1	3	
20	CATCHMNT20	11.48	1	0	1.00	1	3	
1	CATCHMENT1	0	0	.05	0	1	2	1
1	CATCHMENT1	0	0	.2	0	1.5	2.0	.5
2	CATCHMENT2	0	0	.05	0	1	2	1
2	CATCHMENT2	0	0	.2	0	1.5	2.0	.5
3	CATCHMENT3	0	0	.05	0	1	2	1
3	CATCHMENT3	0	0	.2	0	1.5	2.0	.5
4	CATCHMENT4	0	0	.05	0	1	2	1
4	CATCHMENT4	0	0	.2	0	1.5	2.0	.5
5	CATCHMENT5	0	0	.05	0	1	2	1
5	CATCHMENT5	0	0	.2	0	1.5	2.0	.5
6	CATCHMENT6	0	0	.05	0	1	2	1
6	CATCHMENT6	0	0	.2	0	1.5	2.0	.5
7	CATCHMENT7	0	0	.05	0	1	2	1
7	CATCHMENT7	0	0	.2	0	1.5	2.0	.5
8	CATCHMENT8	0	0	.05	0	1	2	1
8	CATCHMENT8	0	0	.2	0	1.5	2.0	.5
9	CATCHMENT9	0	0	.05	0	1	2	1
9	CATCHMENT9	0	0	.2	0	1.5	2.0	.5
10	CATCHMNT10	0	0	.05	0	1	2	1
10	CATCHMNT10	0	0	.2	0	1.5	2.0	.5
11	CATCHMNT11	0	0	.05	0	1	2	1
11	CATCHMNT11	0	0	.2	0	1.5	2.0	.5
12	CATCHMNT12	0	0	.05	0	1	2	1
12	CATCHMNT12	0	0	.2	0	1.5	2.0	.5
13	CATCHMNT13	0	0	.05	0	1	2	1
13	CATCHMNT13	0	0	.2	0	1.5	2.0	.5
14	CATCHMNT14	0	0	.05	0	1	2	1
14	CATCHMNT14	0	0	.2	0	1.5	2.0	.5
15	CATCHMNT15	0	0	.05	0	1	2	1
15	CATCHMNT15	0	0	.2	0	1.5	2.0	.5
16	CATCHMNT16	0	0	.05	0	1	2	1
16	CATCHMNT16	0	0	.2	0	1.5	2.0	.5
17	CATCHMNT17	0	0	.05	0	1	2	1
17	CATCHMNT17	0	0	.2	0	1.5	2.0	.5
18	CATCHMNT18	0	0	.05	0	1	2	1

18	CATCHMNT18	0	0	.2	0	1.5	2.0	.5
19	CATCHMNT19	0	0	.035	0	1	2	1
19	CATCHMNT19	0	0	.2	0	1.5	2.0	.5
20	CATCHMNT20	0	0	.035	0	1	2	1
20	CATCHMNT20	0	0	.2	0	1.5	2.0	.5
1	CATCHMENT1	10.	1.	.013	500	.1	90	
2	CATCHMENT2	10.	1.	.013	500	.1	90	
3	CATCHMENT3	10.	1.	.013	500	.1	90	
4	CATCHMENT4	10.	1.	.013	500	.1	90	
5	CATCHMENT5	10.	1.	.013	500	.1	90	
6	CATCHMENT6	10.	1.	.013	1000	.1	90	
7	CATCHMENT7	10.	1.	.013	1000	.1	90	
8	CATCHMENT8	10.	1.	.013	1000	.1	90	
9	CATCHMENT9	10.	1.	.013	1000	.1	90	
10	CATCHMNT10	10.	1.	.013	1000	.1	90	
11	CATCHMNT11	10.	1.	.013	500	10	90	
12	CATCHMNT12	10.	1.	.013	500	10	90	
13	CATCHMNT13	10.	1.	.013	500	10	90	
14	CATCHMNT14	10.	1.	.013	500	10	90	
15	CATCHMNT15	10.	1.	.013	500	10	90	
16	CATCHMNT16	10.	1.	.013	1000	10	90	
17	CATCHMNT17	10.	1.	.013	1000	10	90	
18	CATCHMNT18	10.	1.	.013	1000	10	90	
19	CATCHMNT19	10.	1.	.013	1000	10	90	
20	CATCHMNT20	10.	1.	.013	1000	10	90	
1	CATCHMENT1							
2	CATCHMENT2							
3	CATCHMENT3							
4	CATCHMENT4							
5	CATCHMENT5							
6	CATCHMENT6							
7	CATCHMENT7							
8	CATCHMENT8							
9	CATCHMENT9							
10	CATCHMNT10							
11	CATCHMNT11							
12	CATCHMNT12							
13	CATCHMNT13							
14	CATCHMNT14							
15	CATCHMNT15							
16	CATCHMNT16							
17	CATCHMNT17							
18	CATCHMNT18							
19	CATCHMNT19							
20	CATCHMNT20							
1	CATCHMENT1	1						
2	CATCHMENT2	1						
3	CATCHMENT3	1						
4	CATCHMENT4	1						
5	CATCHMENT5	1						
6	CATCHMENT6	1						
7	CATCHMENT7	1						
8	CATCHMENT8	1						
9	CATCHMENT9	1						
10	CATCHMNT10	1						
11	CATCHMNT11	1						
12	CATCHMNT12	1						

13	CATCHANT13	1					
14	CATCHANT14	1					
15	CATCHANT15	1					
16	CATCHANT16	1					
17	CATCHANT17	1					
18	CATCHANT18	1					
19	CATCHANT19	1					
20	CATCHANT20	1					
0							
0							
0							
20							
1	CATCHMENT1	4	1	1	40	50	
2	CATCHMENT2	4	2	2	40	48	
3	CATCHMENT3	4	3	3	40	46	
4	CATCHMENT4	4	4	4	40	44	
5	CATCHMENT5	4	5	5	40	42	
6	CATCHMENT6	4	6	6	40	40	
7	CATCHMENT7	4	7	7	40	38	
8	CATCHMENT8	4	8	8	40	36	
9	CATCHMENT9	4	9	9	40	34	
10	CATCHMENT10	4	10	10	40	32	
11	CATCHMENT11	4	11	11	40	30	
12	CATCHMENT12	4	12	12	40	28	
13	CATCHMENT13	4	13	13	40	26	
14	CATCHMENT14	4	14	14	40	24	
15	CATCHMENT15	4	15	15	40	22	
16	CATCHMENT16	4	16	16	40	20	
17	CATCHMENT17	4	17	17	40	18	
18	CATCHMENT18	4	18	18	40	16	
19	CATCHMENT19	4	19	19	40	14	
20	CATCHMENT20	4	20	20	40	12	

BATTELLE URBAN WASTEWATER MANAGEMENT MODEL
SELECTED OUTPUT OF HYPOTHETICAL CATCHMENT SIMULATION

```
ENTERED SEGMENT CHAIN2
SET SWITCH TO DESIRED POSITIONS AND
TYPE CONTROL R TO CONTINUE.

PAUSE [illegible]

ENTERED SEGMENT CREAT
ENTER JOB TITLE




ENTER NAME OF RAIN DATA FILE(FILNAMEXT)

RAIN[illegible]

ENTER NAME OF DISTRICT FILE

HYDR[illegible]

ENTER MODEL TIME
 HR MN DAY

 1[illegible] [illegible] [illegible]

ENTER WEEKDAY OF BEGINNING TIME (SUNDAY=1)

[illegible]

ENTER LENGTH OF RUNOFF HYDROGRAPHS IN HOURS

[illegible]

ENTER LENGTH OF HYDROGRAPH TIME INTERVAL IN MINUTES

5.

ENTER NAME OF INTERCEPTOR FILE

[illegible]

ENTERED SEGMENT CHAIN2

ENTERED CHAIN [illegible]

ENTER DAY OF DESIGN STORM

[illegible]

ENTER BEGINNING HOUR OF DESIGN STORM

[illegible]

ENTERED SEGMENT CHAIN[illegible]
[illegible]
```

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RAIN GAUGE • 1 TRIAL1 RAIN INTENSITIES IN INCHES/HOUR
BEGINNING TIME 805. TIME INTERVAL 5. MINUTES

0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
[illegible]	[illegible]	[illegible]	[illegible]	0.00	[illegible]
0.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
0.34	[illegible]	0.42	[illegible]	[illegible]	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	

INLET • 1 CATCHMENT1 BEGINNING TIME 1000. TIME INTERVAL 5. MINUTES

INFLOW HYDROGRAPH IN CFS

0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.04	[illegible]	0.69	1.50
2.34	4.59	[illegible]	[illegible]	9.44	10.42
10.97	10.94	10.41	[illegible]	[illegible]	[illegible]
5.09	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
0.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
0.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

INLET • 2 CATCHMENT2 BEGINNING TIME 1000. TIME INTERVAL 5. MINUTES

INFLOW HYDROGRAPH IN CF

0.00	0.00	0.00	[illegible]	[illegible]	0.21
[illegible]	0.34	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

INLET # [illegible] CATCHMENT[illegible] BEGINNING TIME [illegible]

INFLOW HYDROGRAPH IN [illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

INLET # 4 CATCHMENT4 BEGINNING TIME 1000. TIME INTERVAL 5. MINUTES

INFLOW HYDROGRAPH IN CFS

0.00	0.00	0.00	0.04	[illegible]	[illegible]
1.25	2.21	3.41	4.79	[illegible]	[illegible]
[illegible]	11.70	[illegible]	[illegible]	18.22	[illegible]
[illegible]	18.40	[illegible]	14.25	12.74	11.47
[illegible]	7.40	[illegible]	[illegible]	[illegible]	[illegible]
1.23	0.70	0.42	[illegible]	0.07	0.21
0.00	0.00	0.00	[illegible]	[illegible]	[illegible]
0.00	0.00	[illegible]	[illegible]	[illegible]	[illegible]

INLET # 5 CATCHMENT5 BEGINNING TIME 1000. TIME INTERVAL 5. MINUTES

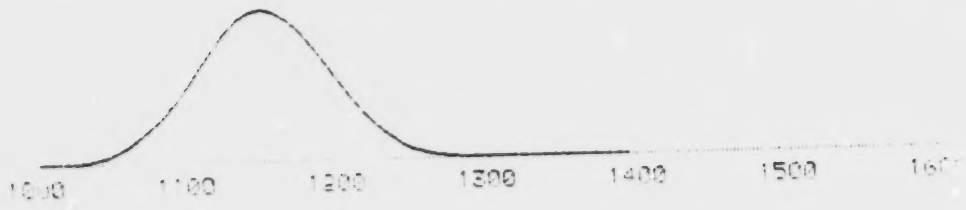
INFLOW HYDROGRAPH IN CFS

0.00	0.00	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	11.04	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Selected Output of Hypothetical Catchment Simulation

CATCHMENT

100.



BATTELLE URBAN WASTEWATER MANAGEMENT MODEL

INPUT DATA LISTING FOR HYPOTHETICAL PIPE SIMULATION

```
   1  NORAIN          0  14  00  0.00
   1  NORAIN          4  14  05  0.00
   1  NORAIN          0  14  10  0.00
9999
```

BATTELLE URBAN WASTEWATER MANAGEMENT MODEL

SELECTED OUTPUT OF HYPOTHETICAL PIPE SIMULATION

```
↑C

$ G I KFR0

ENTERED SEGMENT KFR0

ENTERED SEGMENT CHAIN2
SET SWITCH TO DESIRED POSITIONS AND
TYPE CONTROL P TO CONTINUE.


PAUSE 000002↑P

ENTERED SEGMENT CREAT
ENTER JOB TITLE


RN I


ENTER NAME OF RAIN DATA FILE(FILNAMEXT)

HYRAN4SRC

ENTER NAME OF DISTRICT FILE


HYDIS4SRC

ENTER MODEL TIME
 HR MN DAY

 10 20   8

ENTER WEEKDAY OF BEGINNING TIME (SUNDAY=1)

2

ENTER LENGTH OF RUNOFF HYDROGRAPHS IN HOURS

4

ENTER LENGTH OF HYDROGRAPH TIME INTERVAL IN MINUTES

5.

ENTER NAME OF INTERCEPTOR FILE


HYINT4SRC
```

INLET NO.		BASE TIME	TIME TO PEAK	AVERAGE TRAVEL TIME	LENGTH OF ANTECEDANT RAIN RECORD	MAXIMUM INLET FLOW
1	IN3	20.	10.	25.	285.	20.

```
PIPE     AVERAGE   MAXIMUM
NO.      TRAVEL    FLOW
          TIME

  1         2.2      20.4
  2         2.2      20.4
  3         2.2      20.4
  4         2.2      20.4
  5         2.2      20.4
  6         2.2      20.4
  7         2.2      20.4
  8         2.2      20.4
  9         2.2      20.4
 10         2.2      20.4

ENTERED SEGMENT CHAIN2

ENTERED CHAIN 3

ENTER DAY OF DESIGN STORM

0

ENTER BEGINNING HOUR OF DESIGN STORM

0

ENTERED SEGMENT CHAIN2

ENTERED SEGMENT KFR2

   4    0    0    1    1    1   12  IN1

   1    1    0    2    1    2   12  PI1

   1    2    0    3    2    3   12  PI2

   1    3    0    4    3    4   12  PI3

   1    4    0    5    4    5   12  PI4

   1    5    0    6    5    6   12  PI5

   1    6    0    7    6    7   12  PI6

   1    7    0    8    7    8   12  PI7

   1    8    0    9    8    9   12  PI8

   1    9    0   10    9   10   12  PI9

   1   10    0   11   10   11   12  PI10

   3   11    0   12    1   12   12  REG1

 ENTERED SEGMENT KFR3
 OVERFLOW VOLUME     1        4675        4675
 DIVERTED FLOW      12        3144        3133
 OVERFLOW HYDR       1        3564        3564
 DIVERTED CONC      12     1     3671        3594
 DIVERTED CONC      12     2     3672        3594
 DIVERTED CONC      12     3     3675        3594
 OVERFLOW MASS       1     1     4119        4119
 OVERFLOW MASS       1     2     4120        4119
 OVERFLOW MASS       1     3     4121        4119

 ENTERED SEGMENT KFR2

 ENTERED SEGMENT CHAIN2
```

INLET [illegible] INI BEGINNING TIME 955. TIME INTERVAL 5. MINUTES

INFLOW HYDROGRAPH IN CFS

[illegible]	1.08	[illegible]	3.17	3.75	4.78
[illegible]	5.64	[illegible]	[illegible]	7.51	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	11.77	[illegible]
[illegible]	14.43	[illegible]	[illegible]	16.42	[illegible]
[illegible]	15.77	[illegible]	[illegible]	16.42	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	7.51	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	3.75	[illegible]

BIG CREEK INTERCEPTOR BEGINNING TIME 955. TIME INTERVAL 5. MINUTES

FINAL ROUTED HYDROGRAPH IN CFS

[illegible]	[illegible]	[illegible]	[illegible]	0.37	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	1.14	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	1.21	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	1.44	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	1.57	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	1.65	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	1.74	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	1.81	[illegible]

[illegible] INTERCEPT[illegible] BEGINNING TIME [illegible]. TIME INTERVAL 5. MINUTES

[illegible] FINAL ROUTED CONC. IN MG/LTR

[illegible].00	[illegible]	100.[illegible]	[illegible]	100.[illegible]	100.00
[illegible]	100.[illegible]	100.[illegible]	[illegible]	100.[illegible]	100.[illegible]
[illegible]	100.[illegible]	100.[illegible]	[illegible]	100.[illegible]	100.[illegible]
[illegible]	[illegible]	100.[illegible]	[illegible]	100.[illegible]	100.[illegible]
[illegible]	100.[illegible]	100.[illegible]	[illegible]	100.[illegible]	100.[illegible]
[illegible]	100.[illegible]	100.[illegible]	[illegible]	100.[illegible]	[illegible]
	[illegible]	[illegible]		[illegible]	[illegible]
	[illegible]	[illegible]		[illegible]	[illegible]

BIG CREEK INTERCEPTOR BEGINNING TIME 955. TIME INTERVAL 5. MINUTES

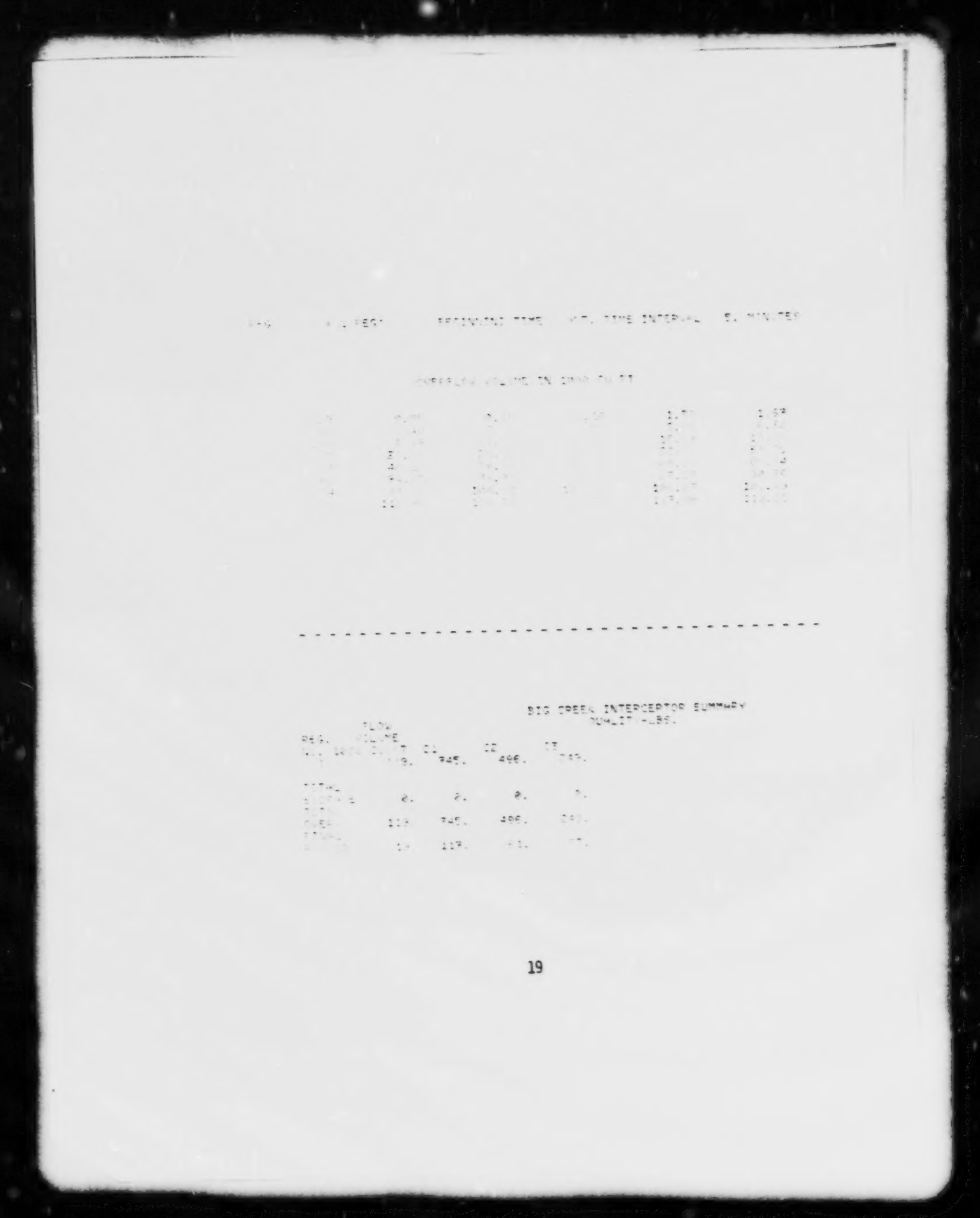
SS FINAL ROUTED CONC. IN MG/LTR

0.00	0.00	0.00	0.01	0.11	0.54
[illegible]	4.55	8.[illegible]	15.71	13.77	23.5[illegible]
[illegible]	32.34	[illegible]	41.0[illegible]	46.32	56.7[illegible]
[illegible]	58.43	65.78	[illegible]	[illegible]	78.41
[illegible]	84.65	[illegible]	[illegible]	84.49	94.15
[illegible]	90.12	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	65.3[illegible]	[illegible]	[illegible]	[illegible]	40.74
[illegible]	41.4[illegible]	[illegible]	[illegible]	28.1[illegible]	26.4[illegible]

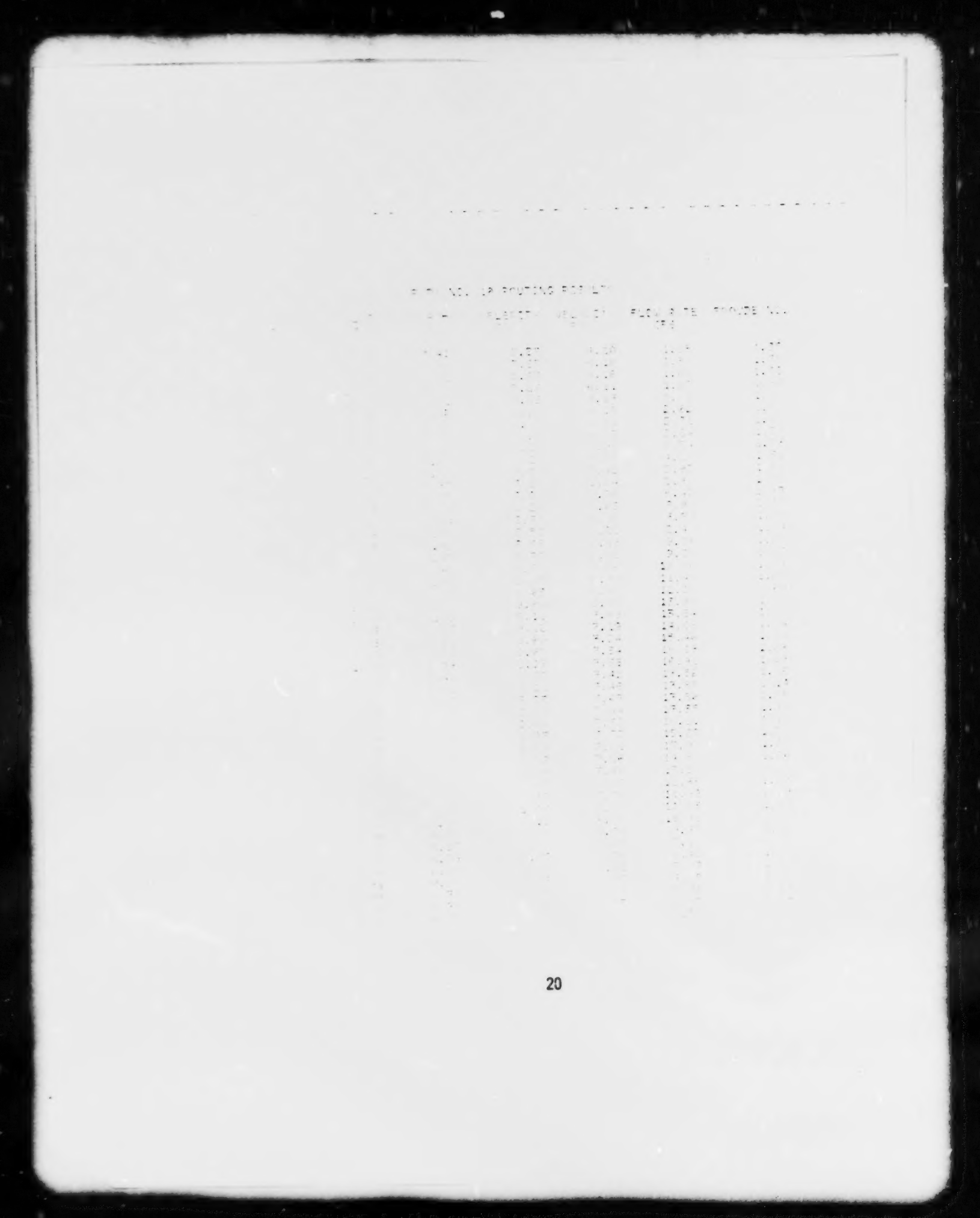
BIG CREEK INTERCEPTOR BEGINNING TIME [illegible]. TIME INTERVAL 5. MINUTES

[illegible] FINAL ROUTED CONC. IN MG/LTR

[illegible].00	100.00	100.00	[illegible]	99.39	99.46
[illegible]	95.45	[illegible]	[illegible]	81.67	76.41
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	42.67	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	15.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	20.[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]		[illegible]	[illegible]

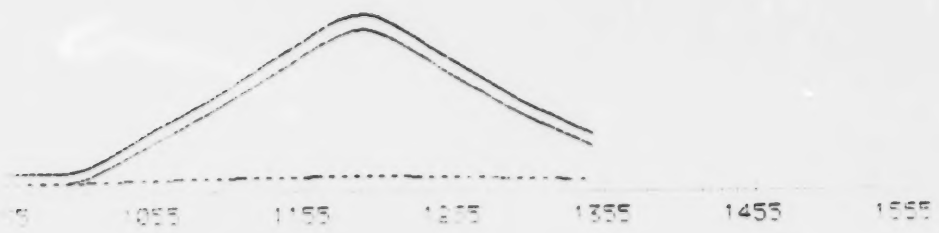


BIG CREEK INTERCEPTOR SUMMARY



FINAL

FINAL
OD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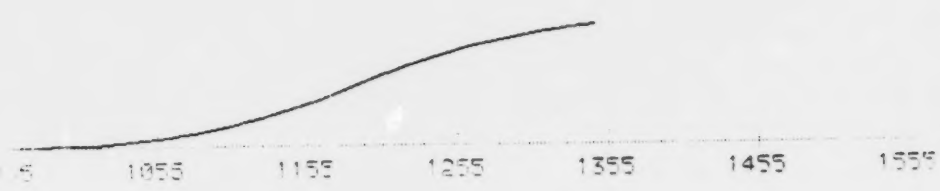
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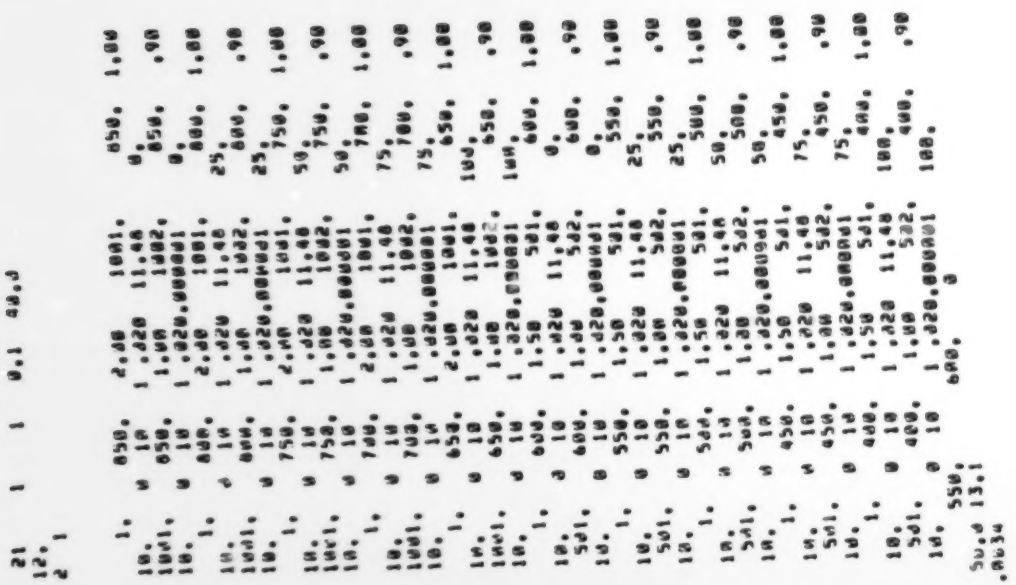
1155
1255
1355
1455

CHICAGO FLOW SIMULATION PROGRAM

INPUT DATA LISTING FOR HYPOTHETICAL CATCHMENT SIMULATION



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.0108
.0171
.0232
.0330
.0375
.0442
.0508
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.0645
.0713
.0829
.0829
.0713
.0645
.0613
.0508
.0375
.0330
.0232
.0171
.0108
.0034
        1.
        1.
        1.
        1.
        1.
        1.
        1.
        1.
        1.
        1.
        1.
        1.
        1.
        1.
        1.
        1.
        1.
        1.
        1.
        1.
        1.
        1.
        1.
        1.
    12
      .001
    21
```

```
10
  1001.       850.      1000.
  1001.       800.      1000.
  1001.       750.      1000.
  1001.       700.      1300.
  1001.       650.      1000
   501.       600.      1000
   501.       550.      1000
   501.       500.      1000
   501.       450.      1000
   501.       400.      1000
  1
  1
*
  10   10    1         1.        40.
  10   10    2         1.        40.
  10   10    3         1.        40.
  10   10    4         1.        40.
  10   10    5         1.        40.
  10   10    6         1.        40.
  10   10    7         1.        40.
  10   10    8         1.        40.
  10   10    9         1.        40.
  10   10   10         1.        40.
```

CHICAGO FLOW SIMULATION PROGRAM

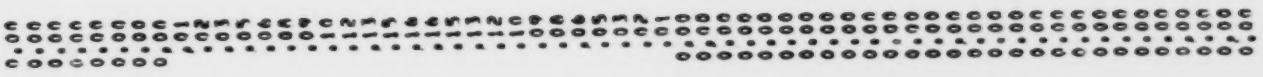
SELECTED OUTPUT OF HYPOTHETICAL CATCHMENT SIMULATION

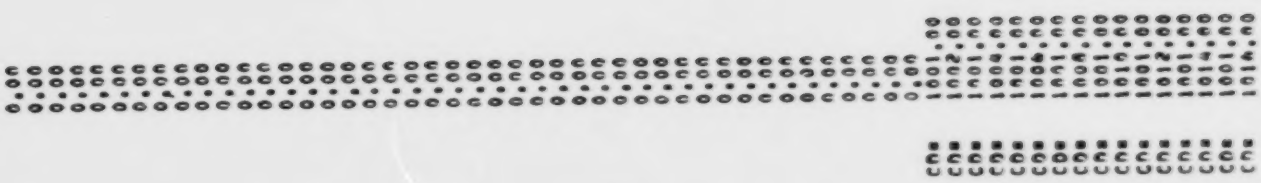
```
SCOPE  3.4     *    CONTROL-CARD-INITIATED LOAD              LOADER    L353       04/09/74  11.15.19.      PAGE     2

                                                                          PREFIX TABLE CONTENTS
BLOCK          ADDRESS    LENGTH        FILE
MCT,RM          42063       233       SL-SYSIO     06/28/73  07.51.29. SCOPE 3.4 COMPASS 3.73140
/OPEN,FO/       42316         7
OPEN,RM         42325       301       SL-SYSIO     06/28/73  07.51.42. SCOPE 3.4 COMPASS 3.73140
OPEN,SQ         42626       230       SL-SYSIO     06/28/73  07.51.58. SCOPE 3.4 COMPASS 3.73140
/PUT,RT/        43056        11
RLEQ,RM         43067        42       SL-SYSIO     06/28/73  07.52.34. SCOPE 3.4 COMPASS 3.73140
WAR,SQ          43131       232       SL-SYSIO     06/28/73  07.53.12. SCOPE 3.4 COMPASS 3.73140
/CLSF,FO/       43363         7
CLSF,RM         43372        23       SL-SYSIO     06/28/73  07.53.37. SCOPE 3.4 COMPASS 3.73140
/GET,RT/        43415        11
Z,SQ            43426        76       SL-SYSIO     06/28/73  07.54.35. SCOPE 3.4 COMPASS 3.73140
W,SQ            43524        50       SL-SYSIO     06/28/73  07.54.44. SCOPE 3.4 COMPASS 3.73140
FSU,SQ          43574       111       SL-SYSIO     06/28/73  07.54.52. SCOPE 3.4 COMPASS 3.73140
WEOX,SQ         43705       131       SL-SYSIO     06/28/73  07.55.38. SCOPE 3.4 COMPASS 3.73140
/SKFL,FO/       44036         7
SKFL,SQ         44045        46       SL-SYSIO     06/28/73  07.56.01. SCOPE 3.4 COMPASS 3.73140
ERR,RM          44113       367       SL-SYSIO     06/28/73  07.51.22. SCOPE 3.4 COMPASS 3.73140
CHWR,SQ         44502         7       SL-SYSIO     06/28/73  07.51.29. SCOPE 3.4 COMPASS 3.73140
OPEX,SQ         44511       135       SL-SYSIO     06/28/73  07.52.12. SCOPE 3.4 COMPASS 3.73140
/PUT,FO/        44646         7
PUT,RM          44655         2       SL-SYSIO     06/28/73  07.52.33. SCOPE 3.4 COMPASS 3.73140
PUT,SQ          44657      1110       SL-SYSIO     06/28/73  07.52.36. SCOPE 3.4 COMPASS 3.73140
CLSF,SQ         45767       136       SL-SYSIO     06/28/73  07.53.39. SCOPE 3.4 COMPASS 3.73140
/CLSV,FO/       46125         7
CLSV,SQ         46134       115       SL-SYSIO     06/28/73  07.53.48. SCOPE 3.4 COMPASS 3.73140
/REW,FO/        46251         7
REW,SQ          46260        35       SL-SYSIO     06/28/73  07.54.01. SCOPE 3.4 COMPASS 3.73140
/GET,FO/        46315         7
/GET,BT/        46324         5
GET,SQ          46331       730       SL-SYSIO     06/28/73  07.54.05. SCOPE 3.4 COMPASS 3.73140
BTRT,SQ         47261       117       SL-SYSIO     06/28/73  07.54.58. SCOPE 3.4 COMPASS 3.73140
LXER,SQ         47400       203       SL-SYSIO     06/28/73  07.55.28. SCOPE 3.4 COMPASS 3.73140
SYS,RM          47603        37       SL-NUCLEUS   08/11/73  19.36.12. SCOPE 3.4 COMPASS 3.73140
                                                   PROCESS SYSTEM REQUEST.
 //             47642      3744

        3.432 CP SECONDS LOAD TIME


NO.     1 REACH READ IN, AND HAS A ZERO OR NEG. SLOPE
Z=   -0.00C=   -0.00
NO.     1 REACH READ IN, MANNING'S N OUT OF RANGE, CHECK N=     -0.00
   1.42 MI. OF REACH,       .2 SQ. MI. DRAINAGE AREA,    7.93 DRAINAGE DENSITY
END OF DAY   AT GAGE   COMP. DEPTH   TOTAL PRCP.   TOTAL DRNG.
REFERENCE GAGE PRECIP.=0,GAGE NO.   1 PRECIP. ADJUSTED TO ZERO
        1          1          0.00          2.002          2.002
KURD=  1
      0.00
      0.00
      0.00
      0.00
```





```
CN=   1001.00
CN=   1018.00
CN=   1001.00
CN=   1020.00
 DAY =    1
RAI(N5)=       0.00
RAI(N5)=       0.00
RAI(N5)=       0.00
RAI(N5)=       0.00
RAI(N5)=       0.00
RAI(N5)=       0.00
RAI(N5)=       0.00
RAI(N5)=       0.00
RAI(N5)=       0.00
RAI(N5)=       0.00
RAI(N5)=       0.00
RAI(N5)=       0.00
RAI(N5)=        .01
RAI(N5)=        .02
RAI(N5)=        .03
TIM,FL,Q,STOR=      15.00       .00       .01       .00
TIM,FL,Q,STOR=      15.00       .01       .06       .00
TIM,FL,Q,STOR=      15.00       .01       .19       .00
TIM,EL,Q,STOR=      15.00       .02       .25       .00
TIM,EL,Q,STOR=      15.00       .02       .35       .00
TIM,EL,Q,STOR=      15.00       .00       .01       .00
TIM,EL,Q,STOR=      15.00       .01       .05       .00
TIM,EL,Q,STOR=      15.00       .01       .13       .00
TIM,EL,Q,STOR=      15.00       .01       .21       .00
TIM,EL,Q,STOR=      15.00       .02       .31       .00
RAI(N5)=        .05
TIM,EL,Q,STOR=      16.00       .00       .01       .00
TIM,EL,Q,STOR=      16.00       .01       .17       .00
TIM,EL,Q,STOR=      16.00       .02       .30       .00
TIM,EL,Q,STOR=      16.00       .02       .48       .00
TIM,EL,Q,STOR=      16.00       .03       .67       .00
TIM,EL,Q,STOR=      16.00       .00       .02       .00
TIM,EL,Q,STOR=      16.00       .01       .11       .00
TIM,EL,Q,STOR=      16.00       .02       .26       .00
TIM,EL,Q,STOR=      16.00       .02       .42       .00
TIM,EL,Q,STOR=      16.00       .03       .62       .00
RAI(N5)=        .06
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TIM,EL,Q,STOR=      17.00       .01       .20       .00
TIM,EL,Q,STOR=      17.00       .02       .48       .00
TIM,EL,Q,STOR=      17.00       .03       .77       .00
TIM,EL,Q,STOR=      17.00       .04      1.08       .00
TIM,EL,Q,STOR=      17.00       .01       .04       .00
TIM,EL,Q,STOR=      17.00       .01       .19       .00
TIM,EL,Q,STOR=      17.00       .02       .44       .00
TIM,EL,Q,STOR=      17.00       .03       .71       .00
TIM,EL,Q,STOR=      17.00       .04      1.03       .01
RAI(N5)=        .08
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TIM,EL,Q,STOR=      18.00       .02       .31       .00
TIM,EL,Q,STOR=      18.00       .03       .73       .00
TIM,EL,Q,STOR=      18.00       .04      1.16       .00
TIM,EL,Q,STOR=      18.00       .05      1.61       .00
TIM,EL,Q,STOR=      18.00       .01       .07       .00
TIM,FL,Q,STOR=      18.00       .02       .31       .00
```

```
TIM,EL,Q,STOR=      29.00       .07       2.48       .01
TIM,EL,Q,STOR=      29.00       .10       4.90       .02
TIM,EL,Q,STOR=      29.00       .13       7.34       .03
TIM,EL,Q,STOR=      29.00       .15       9.59       .03
RAI(NS)=    .09
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TIM,EL,Q,STOR=      30.00       .06       2.10       .01
TIM,EL,Q,STOR=      30.00       .10       4.59       .01
TIM,EL,Q,STOR=      30.00       .12       7.07       .01
TIM,EL,Q,STOR=      30.00       .15       9.55       .02
TIM,EL,Q,STOR=      30.00       .04        .93       .01
TIM,EL,Q,STOR=      30.00       .07       2.58       .01
TIM,EL,Q,STOR=      30.00       .10       5.06       .02
TIM,EL,Q,STOR=      30.00       .13       7.55       .03
TIM,EL,Q,STOR=      30.00       .15       9.74       .03
RAI(NS)=    .08
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TIM,EL,Q,STOR=      31.00       .06       2.14       .01
TIM,EL,Q,STOR=      31.00       .10       4.66       .01
TIM,EL,Q,STOR=      31.00       .12       7.17       .01
TIM,EL,Q,STOR=      31.00       .15       9.65       .02
TIM,EL,Q,STOR=      31.00       .04        .98       .01
TIM,EL,Q,STOR=      31.00       .07       2.66       .01
TIM,EL,Q,STOR=      31.00       .10       5.17       .02
TIM,EL,Q,STOR=      31.00       .13       7.68       .03
TIM,EL,Q,STOR=      31.00       .15       9.80       .03
RAI(NS)=    .06
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TIM,EL,Q,STOR=      32.00       .10       4.66       .01
TIM,EL,Q,STOR=      32.00       .12       7.16       .01
TIM,EL,Q,STOR=      32.00       .15       9.61       .02
TIM,EL,Q,STOR=      32.00       .04       1.03       .01
TIM,EL,Q,STOR=      32.00       .07       2.71       .01
TIM,EL,Q,STOR=      32.00       .10       5.21       .02
TIM,EL,Q,STOR=      32.00       .13       7.70       .03
TIM,EL,Q,STOR=      32.00       .15       9.72       .03
RAI(NS)=    .05
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TIM,EL,Q,STOR=      33.00       .06       2.16       .01
TIM,EL,Q,STOR=      33.00       .10       4.63       .01
TIM,EL,Q,STOR=      33.00       .12       7.09       .01
TIM,EL,Q,STOR=      33.00       .15       9.47       .02
TIM,EL,Q,STOR=      33.00       .04       1.07       .01
TIM,EL,Q,STOR=      33.00       .07       2.75       .01
TIM,EL,Q,STOR=      33.00       .10       5.20       .02
TIM,EL,Q,STOR=      33.00       .13       7.65       .03
TIM,EL,Q,STOR=      33.00       .13       9.53       .03
RAI(NS)=    .03
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TIM,EL,Q,STOR=      34.00       .06       2.13       .01
TIM,EL,Q,STOR=      34.00       .09       4.52       .01
TIM,EL,Q,STOR=      34.00       .12       6.92       .01
TIM,EL,Q,STOR=      34.00       .15       9.20       .02
TIM,EL,Q,STOR=      34.00       .04       1.10       .01
TIM,EL,Q,STOR=      34.00       .07       2.72       .01
TIM,EL,Q,STOR=      34.00       .10       5.12       .02
TIM,EL,Q,STOR=      34.00       .13       7.50       .03
TIM,EL,Q,STOR=      34.00       .15       9.23       .03
RAI(NS)=    .02
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TIM,EL,Q,STOR=     100.00        .01         .85         .01
TIM,EL,Q,STOR=     100.00        .03         .78         .01
TIM,EL,Q,STOR=     100.00        .03         .54         .00
TIM,EL,Q,STOR=     100.00        .02         .22         .00
RAI(N5)=        0.00
TIM,EL,Q,STOR=     101.00        .02         .47         .00
TIM,EL,Q,STOR=     101.00        .03         .50         .00
TIM,EL,Q,STOR=     101.00        .03         .53         .00
TIM,EL,Q,STOR=     101.00        .03         .50         .00
TIM,EL,Q,STOR=     101.00        .01         .21         .00
TIM,EL,Q,STOR=     101.00        .03         .85         .01
TIM,EL,Q,STOR=     101.00        .03         .84         .01
TIM,EL,Q,STOR=     101.00        .03         .77         .00
TIM,EL,Q,STOR=     101.00        .03         .55         .00
TIM,EL,Q,STOR=     101.00        .01         .21         .00
RAI(N5)=        0.00
TIM,EL,Q,STOR=     102.00        .02         .47         .00
TIM,EL,Q,STOR=     102.00        .03         .50         .00
TIM,EL,Q,STOR=     102.00        .03         .52         .00
TIM,EL,Q,STOR=     102.00        .02         .49         .00
TIM,EL,Q,STOR=     102.00        .01         .20         .00
TIM,EL,Q,STOR=     102.00        .03         .85         .01
TIM,EL,Q,STOR=     102.00        .03         .83         .01
TIM,EL,Q,STOR=     102.00        .03         .76         .00
TIM,EL,Q,STOR=     102.00        .03         .53         .00
TIM,EL,Q,STOR=     102.00        .01         .20         .00
RAI(N5)=        0.00
TIM,EL,Q,STOR=     103.00        .02         .46         .00
TIM,EL,Q,STOR=     103.00        .02         .49         .00
TIM,EL,Q,STOR=     103.00        .03         .52         .00
TIM,EL,Q,STOR=     103.00        .02         .48         .00
TIM,EL,Q,STOR=     103.00        .01         .19         .00
TIM,EL,Q,STOR=     103.00        .03         .84         .01
TIM,EL,Q,STOR=     103.00        .03         .83         .01
TIM,EL,Q,STOR=     103.00        .03         .75         .00
TIM,EL,Q,STOR=     103.00        .03         .52         .00
TIM,EL,Q,STOR=     103.00        .01         .19         .00
RAI(N5)=        0.00
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     501.0       700.0         1.1
       1.0       450.0        51.0
     501.0       650.0         1.1
       1.0       350.0       101.0
    1001.0       350.0         1.0
       1.0       300.0       101.0
    1001.0       300.0         1.1
       1.0       250.0       101.0
    1001.0       250.0         1.1
       1.0       200.0       101.0
    1001.0       200.0         1.1
       1.0       150.0       101.0
    1001.0       150.0         1.2
END OF RUN
```

CHICAGO FLOW SIMULATION PROGRAM

Input Data Listing for Hypothetical Pipe Simulation

```
 25    1    1  0.1 40.0
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  999.      900.  550.1     1000.       900.  550.
  2.   0.    0    0 .011.000001         0
 1000.     900.  550.      2000.       900. 545.0
  2.6.757    0    0 .011    2.90        0
 2000.      900. 545.0     3000.       900.  540.
  2.   0.    0    0 .011.000001         0
 3000.      900.  540.     4000.       900. 535.0
  2.   0.    0    0 .011.000001         0
 4000.      900. 535.0     5000.       900.  530.
  2.   0.    0    0 .011.000001         0
 5000.      900.  530.     6000.       900. 525.0
  2.   0.    0    0 .011.000001         0
 6000.      900. 525.0     7000.       900.  520.
  2.   0.    0    0 .011.000001         0
 7000.      900.  520.     8000.       900. 515.0
  2.   0.    0    0 .011.000001         0
 8000.      900. 515.0     9000.       900.  510.
  2.   0.    0    0 .011.000001         0
 9000.      900.  510.    10000.       900. 505.0
  2.   0.    0    0 .011.000001         0
10000.      900. 505.0    11000.       900.  500.
  2.   0.    0    0 .011.000001         0
11000.      900.  500.    11001.       900. 499.9
  2.   0.    0    0 .011.000001         0
  999.      800.  550.1     1000.       800.  550.
 12.   0.    0    0 .011.000001         0
 1000.      800.  550.     2000.       800. 545.0
 12.803.1    0    0 .011    2.90        0
 2000.      800. 545.0.    3000.       800.  540.
 12.   0.    0    0 .011.000001         0
 3000.      800.  540.     4000.       800. 535.0
 12.   0.    0    0 .011.000001         0
 4000.      800. 535.0.    5000.       800.  530.
 12.   0.    0    0 .011.000001         0
 5000.      800.  530.     6000.       800. 525.0
 12.   0.    0    0 .011.000001         0
 6000.      800. 525.0     7000.       800.  520.
 12.   0.    0    0 .011.000001         0
 7000.      800.  520.     8000.       800. 515.0
 12.   0.    0    0 .011.000001         0
 8000.      800. 515.0     9000.       800.  510.
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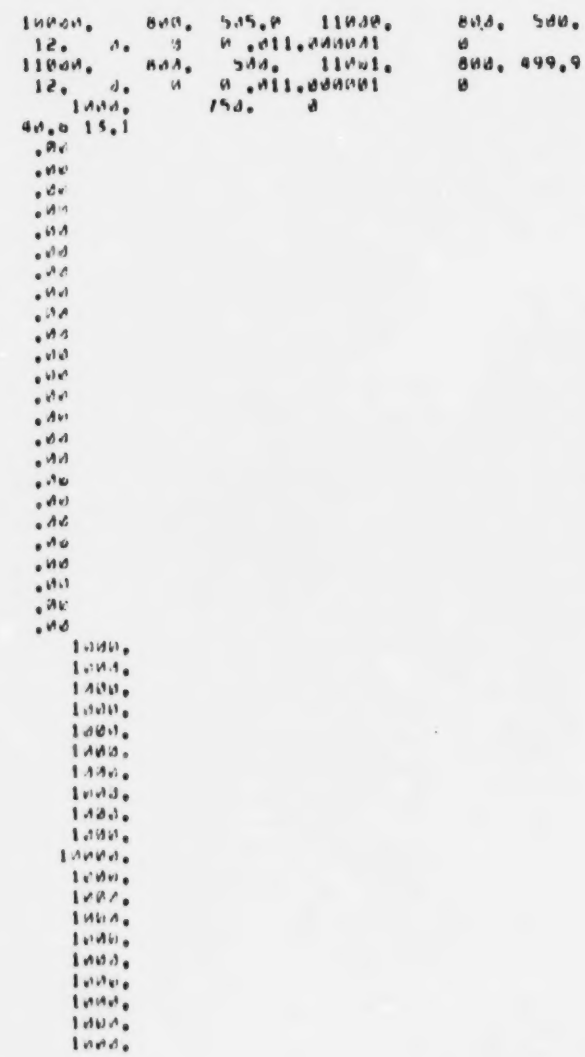

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CHICAGO FLOW SIMULATION PROGRAM

<u>SELECTED OUTPUT OF HYPOTHETICAL PIPE SIMULATION</u>

```
SCOPE 3.4.1    -    CONTROL-CARD-INITIATED LOAD           LOADER    P6730      10/02/74  14.57.59.      PAGE      5

          3,967 CP SECONDS LOAD TIME


NO,     1 REACH READ IN, AND HAS A ZERO OR NEG, SLOPE
Z=   -0,00C=    -0,00
NO,     1 REACH READ IN, MANNING"S N OUT OF RANGE, CHECK N=     -0,00
   3,79 MI, OF REACH,       ,0 SQ, MI, DRAINAGE AREA, 412,37 DRAINAGE DENSITY
END OF DAY   AT GAGE   COMP, DEPTH   TOTAL PRCP,   TOTAL DRNG,
REFERENCE GAGE PRECIP,=0,GAGE NO,   1 PRECIP, ADJUSTED TO ZERO
        1          1          0,00          0,000          0,000
KURD=  1
      0,00
      0,00
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        0.00
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        0.00
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        0.00
 CO=   1001.00
 CO=   1002.00
 CO=   1003.00
 CO=   1004.00
 CO=   1005.00
 CO=   1006.00
 CO=   1007.00
 CO=   1008.00
 CO=   1009.00
 CO=   1010.00
 CO=   1011.00
 CO=   1012.00
 CO=   1001.00
 CO=   1014.00
 CO=   1015.00
 CO=   1016.00
 CO=   1017.00
 CO=   1018.00
 CO=   1019.00
 CO=   1020.00
 CO=   1021.00
 CO=   1022.00
 CO=   1023.00
 CO=   1024.00
  DAY  =    1
 HAI(NS)=      0.00
 TIM,EL,Q,STOR=      1.00      .00       .01       .00
 TIM,EL,Q,STOR=      1.00      .12      1.11       .01
 TIM,EL,Q,STOR=      1.00      .07       .65       .00
 TIM,EL,Q,STOR=      1.00      .04       .38       .00
 TIM,EL,Q,STOR=      1.00      .02       .23       .00
 TIM,EL,Q,STOR=      1.00      .01       .14       .00
 TIM,EL,Q,STOR=      1.00      .01       .08       .00
 TIM,EL,Q,STOR=      1.00      .01       .05       .00
 TIM,EL,Q,STOR=      1.00      .00       .03       .00
 TIM,EL,Q,STOR=      1.00      .00       .02       .00
 TIM,EL,Q,STOR=      1.00      .00       .02       .00
 TIM,EL,Q,STOR=      1.00     0.00      0.00      0.00
 TIM,EL,Q,STOR=      1.00      .00       .11       .00
 TIM,EL,Q,STOR=      1.00      .98    183.89       .27
 TIM,EL,Q,STOR=      1.00      .81    151.52       .22
 TIM,EL,Q,STOR=      1.00      .67    124.65       .18
 TIM,EL,Q,STOR=      1.00      .55    102.88       .15
 TIM,EL,Q,STOR=      1.00      .45     84.77       .12
 TIM,EL,Q,STOR=      1.00      .37     69.66       .10
 TIM,EL,Q,STOR=      1.00      .31     57.57       .08
 TIM,EL,Q,STOR=      1.00      .25     47.45       .07
 TIM,EL,Q,STOR=      1.00      .21     39.11       .06
 TIM,EL,Q,STOR=      1.00      .17     32.38       .05
 TIM,EL,Q,STOR=      1.00     0.00      0.00      0.00
 HAI(NS)=      0.00
 TIM,EL,Q,STOR=      2.00      .00       .01       .00
 TIM,EL,Q,STOR=      2.00      .17      1.56       .01
```
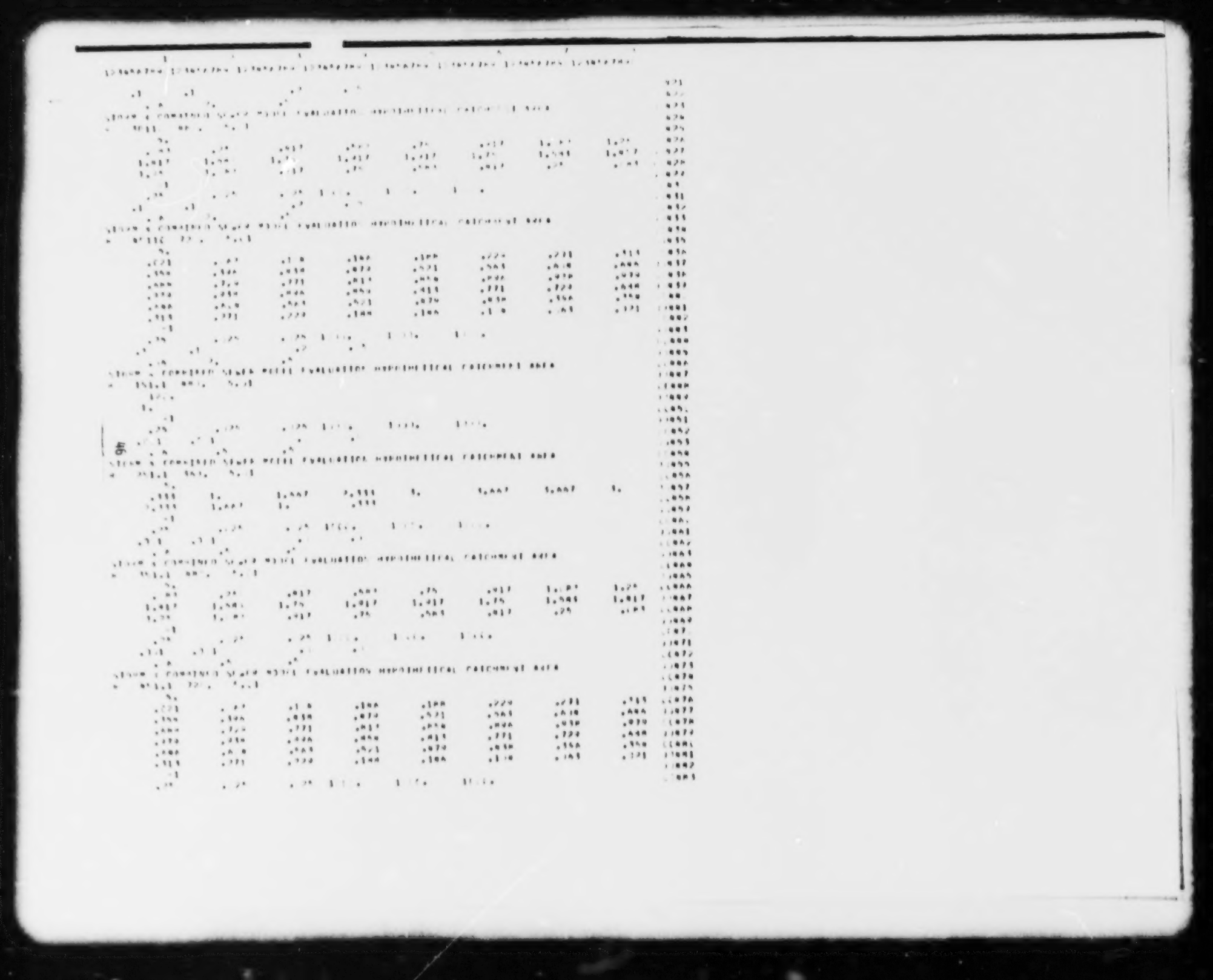
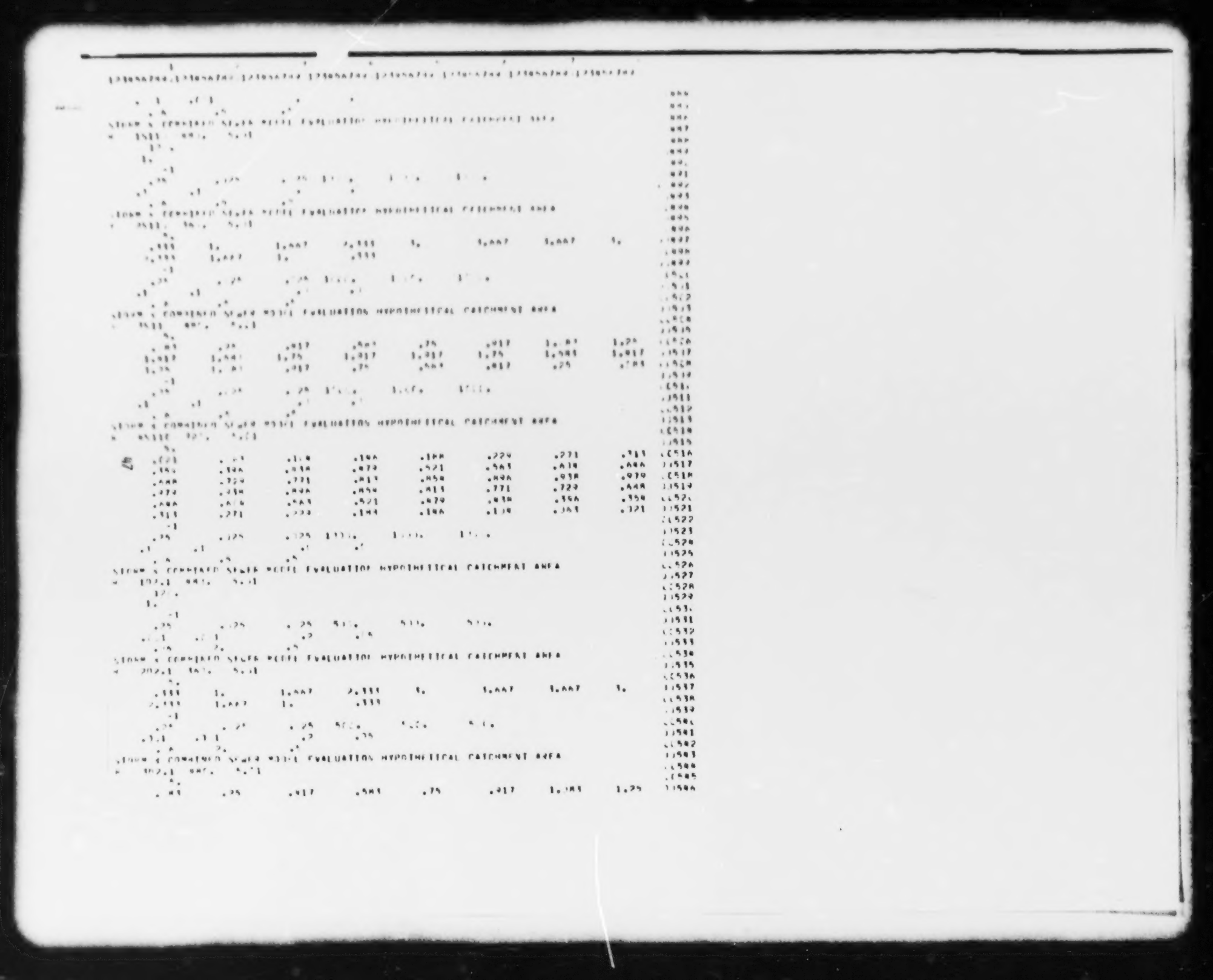
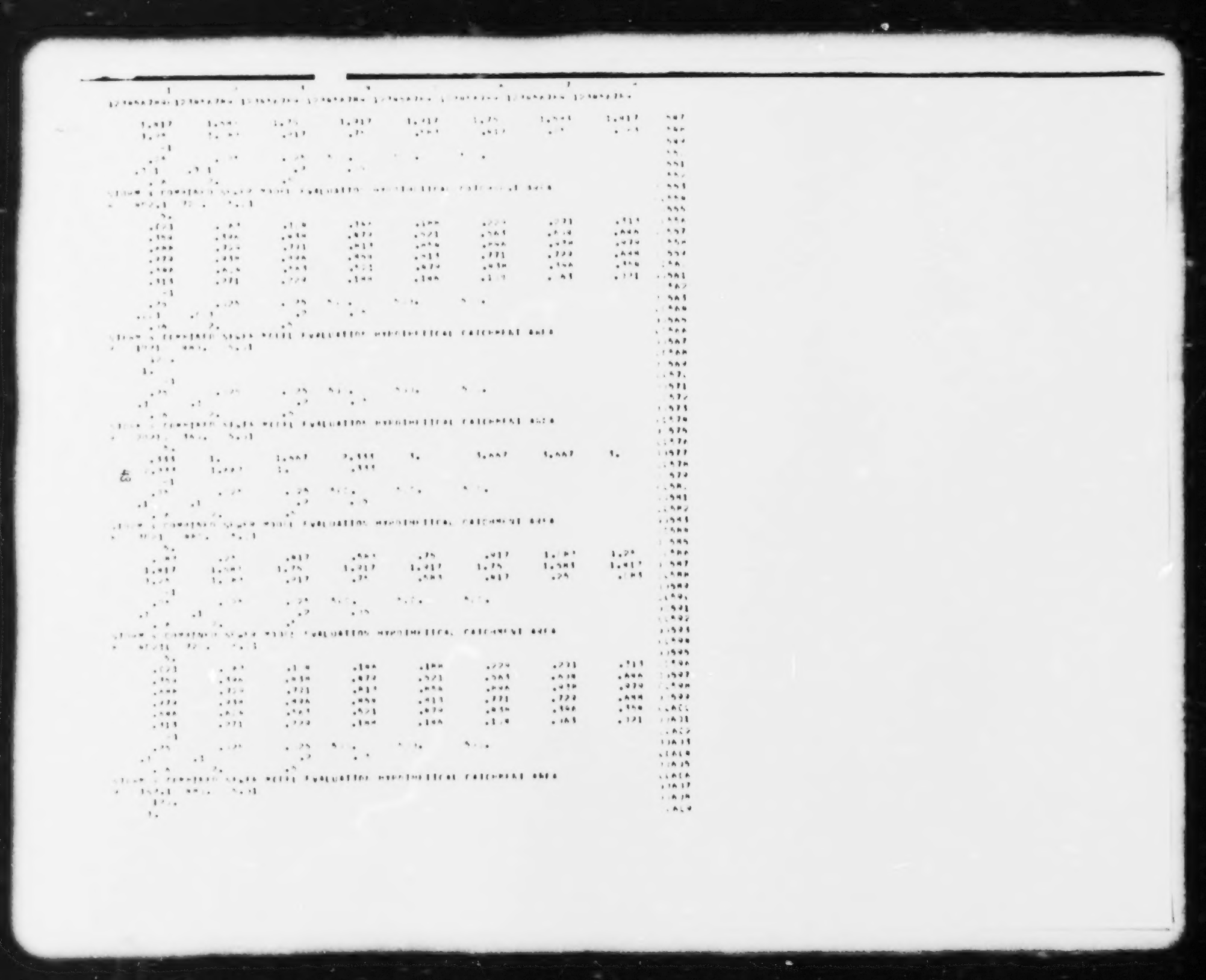

```
TIM,EL,Q,STOR=      35.00      11.93     2251.04      3.29
TIM,EL,Q,STOR=      35.00      11.93     2251.03      3.29
TIM,EL,Q,STOR=      35.00      11.93     2251.03      3.29
TIM,EL,Q,STOR=      35.00      11.93     2251.01      3.29
TIM,EL,Q,STOR=      35.00      11.93     2250.98      3.29
TIM,EL,Q,STOR=      35.00      11.84     2250.93      3.21
TIM,EL,Q,STOR=      35.00       0.00        0.00      0.00
RAI(NS)=      0.00
TIM,EL,Q,STOR=      36.00        .00         .01       .00
TIM,EL,Q,STOR=      36.00        .95        8.92       .04
TIM,EL,Q,STOR=      36.00       1.39       13.01       .06
TIM,EL,Q,STOR=      36.00       1.64       15.40       .08
TIM,EL,Q,STOR=      36.00       1.79       16.78       .08
TIM,EL,Q,STOR=      36.00       1.87       17.56       .09
TIM,EL,Q,STOR=      36.00       1.91       17.96       .09
TIM,EL,Q,STOR=      36.00       1.93       18.10       .09
TIM,EL,Q,STOR=      36.00       1.92       18.05       .09
TIM,EL,Q,STOR=      36.00       1.90       17.83       .09
TIM,EL,Q,STOR=      36.00       1.75       17.48       .08
TIM,EL,Q,STOR=      36.00       0.00        0.00      0.00
TIM,EL,Q,STOR=      36.00        .00         .20       .00
TIM,EL,Q,STOR=      36.00       3.08      576.99       .85
TIM,EL,Q,STOR=      36.00       4.64      868.38      1.28
TIM,EL,Q,STOR=      36.00       5.93     1108.44      1.63
TIM,EL,Q,STOR=      36.00       6.98     1306.20      1.92
TIM,EL,Q,STOR=      36.00       7.85     1469.13      2.16
TIM,EL,Q,STOR=      36.00       8.57     1605.35      2.36
TIM,EL,Q,STOR=      36.00       9.16     1713.93      2.52
TIM,EL,Q,STOR=      36.00       9.65     1805.02      2.66
TIM,EL,Q,STOR=      36.00      10.05     1880.06      2.77
TIM,EL,Q,STOR=      36.00      10.13     1940.65      2.79
TIM,EL,Q,STOR=      36.00       0.00        0.00      0.00
RAI(NS)=      0.00
TIM,EL,Q,STOR=      37.00        .00         .01       .00
TIM,EL,Q,STOR=      37.00        .51        4.81       .02
TIM,EL,Q,STOR=      37.00        .88        8.21       .04
TIM,EL,Q,STOR=      37.00       1.19       11.20       .05
TIM,EL,Q,STOR=      37.00       1.44       13.52       .07
TIM,EL,Q,STOR=      37.00       1.62       15.19       .07
TIM,EL,Q,STOR=      37.00       1.74       16.34       .08
TIM,EL,Q,STOR=      37.00       1.82       17.07       .08
TIM,EL,Q,STOR=      37.00       1.86       17.48       .09
TIM,EL,Q,STOR=      37.00       1.88       17.62       .09
TIM,EL,Q,STOR=      37.00       1.76       17.57       .08
TIM,EL,Q,STOR=      37.00       0.00        0.00      0.00
TIM,EL,Q,STOR=      37.00        .00         .20       .00
TIM,EL,Q,STOR=      37.00       1.53      285.60       .42
TIM,EL,Q,STOR=      37.00       2.08      388.27       .57
TIM,EL,Q,STOR=      37.00       2.75      515.14       .76
TIM,EL,Q,STOR=      37.00       3.50      654.50       .96
TIM,EL,Q,STOR=      37.00       4.27      798.01      1.18
TIM,EL,Q,STOR=      37.00       5.02      939.84      1.38
TIM,EL,Q,STOR=      37.00       5.75     1076.25      1.58
TIM,EL,Q,STOR=      37.00       6.44     1204.64      1.77
TIM,EL,Q,STOR=      37.00       7.08     1323.62      1.95
TIM,EL,Q,STOR=      37.00       7.66     1430.16      2.06
TIM,EL,Q,STOR=      37.00       0.00        0.00      0.00
RAI(NS)=      0.00
TIM,EL,Q,STOR=      38.00        .00         .01       .00
TIM,EL,Q,STOR=      38.00        .33        3.10       .02
```

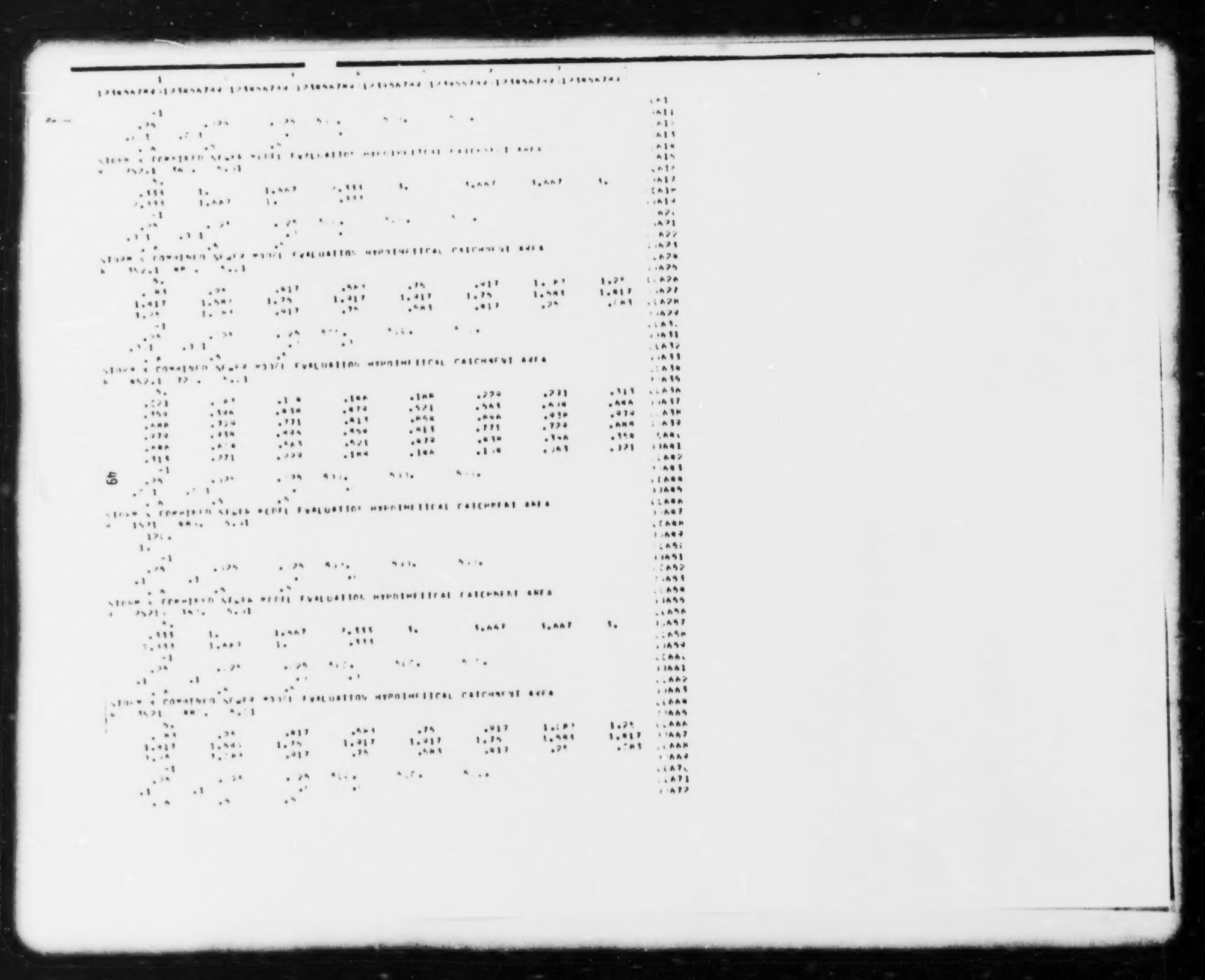
DORSCH CONSULT HYDROGRAPH-VOLUME METHOD

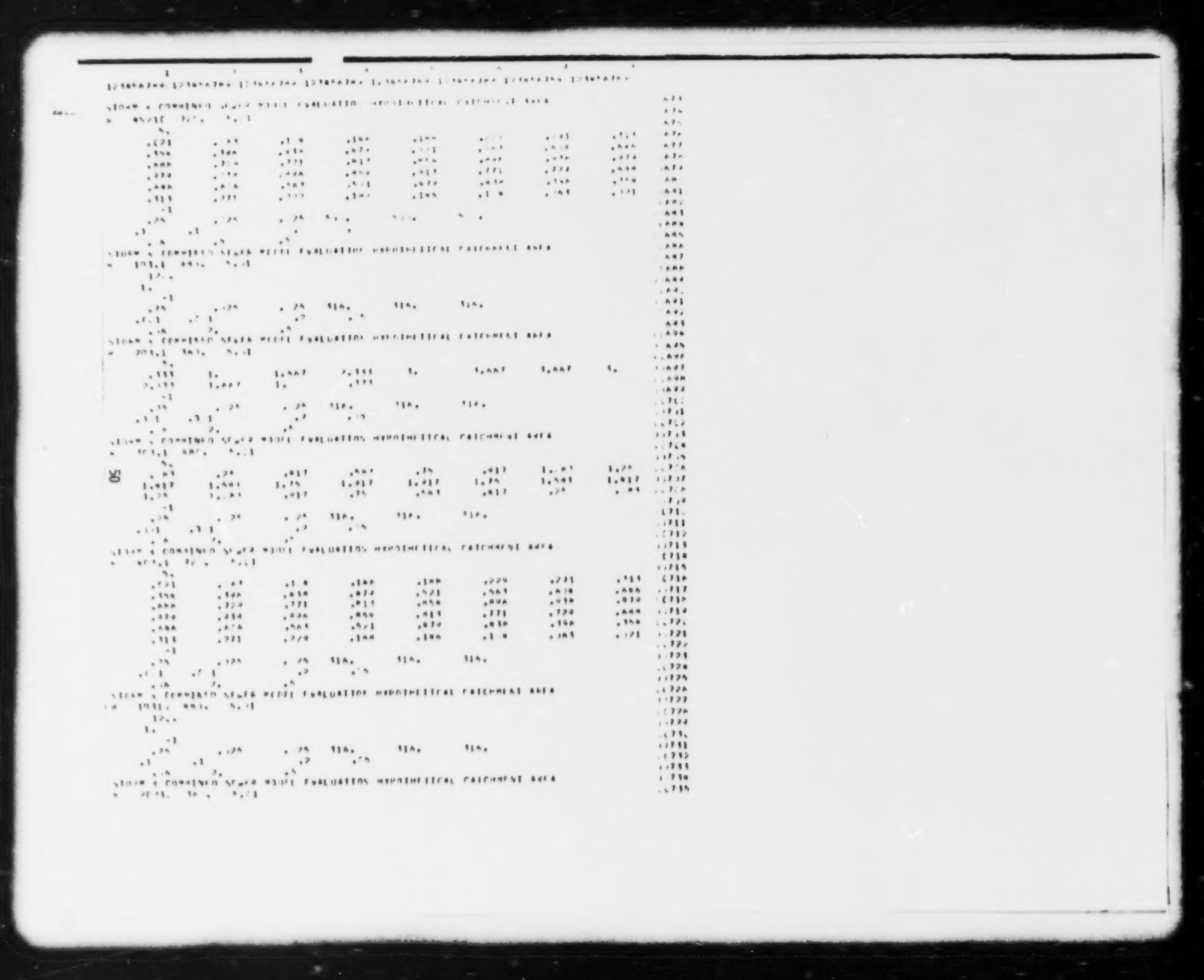
INPUT DATA LISTING FOR HYPOTHETICAL CATCHMENT SIMULATION











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     5.                                                                           00736
   .333     1.        1.667     2.333     3.        3.667     3.667     3.       00737
  2.333     1.667     1.         .333                                             00738
     -1                                                                           00739
    .25      .25       .25   316.      316.      316.                             00740
  .1       .1            .2       .5                                              00741
    .6       2.        .5                                                         00742
TOMS COMBINED SEWER MODEL EVALUATION HYPOTHETICAL CATCHMENT AREA                 00743
  3031    480.    5.01                                                            00744
     5.                                                                           00745
   .083      .25       .417      .583      .75       .917     1.083     1.25     00746
  1.417     1.583     1.75      1.917     1.917     1.75      1.583     1.417    00747
  1.25      1.083      .917      .75       .583      .417      .25       .083    00748
     -1                                                                           00749
    .25      .25       .25   316.      316.      316.                             00750
  .1       .1            .2       .5                                              00751
    .6       2.        .5                                                         00752
TOMS COMBINED SEWER MODEL EVALUATION HYPOTHETICAL CATCHMENT AREA                 00753
  4031C   720.    5.01                                                            00754
     5.                                                                           00755
   .021      .063      .104      .146      .188      .229      .271      .313    00756
   .354      .396      .438      .479      .521      .563      .604      .646    00757
   .688      .729      .771      .813      .854      .896      .938      .979    00758
   .979      .938      .896      .854      .813      .771      .729      .688    00759
   .646      .604      .563      .521      .479      .438      .396      .354    00760
   .313      .271      .229      .188      .146      .104      .063      .021    00761
     -1                                                                           00762
    .25      .25       .25   316.      316.      316.                             00763
  .1       .1            .2       .5                                              00764
    .6       2.        .5                                                         00765
TOMS COMBINED SEWER MODEL EVALUATION HYPOTHETICAL CATCHMENT AREA                 00766
  1531    480.    5.01                                                            00767
    12.                                                                           00768
3   1.                                                                            00769
     -1                                                                           00770
    .25      .25       .25   316.      316.      316.                             00771
  .01      .01           .5       .5                                              00772
    .6       .5        .5                                                         00773
TOMS COMBINED SEWER MODEL EVALUATION HYPOTHETICAL CATCHMENT AREA                 00774
  2531    360.    5.01                                                            00775
     5.                                                                           00776
   .333     1.        1.667     2.333     3.        3.667     3.667     3.       00777
  2.333     1.667     1.         .333                                             00778
     -1                                                                           00779
    .25      .25       .25   316.      316.      316.                             00780
  .01      .01           .5       .5                                              00781
    .6       .5        .5                                                         00782
TOMS COMBINED SEWER MODEL EVALUATION HYPOTHETICAL CATCHMENT AREA                 00783
  3531    480.    5.01                                                            00784
     5.                                                                           00785
   .083      .25       .417      .583      .75       .917     1.083     1.25     00786
  1.417     1.583     1.75      1.917     1.917     1.75      1.583     1.417    00787
  1.25      1.083      .917      .75       .583      .417      .25       .083    00788
     -1                                                                           00789
    .25      .25       .25   316.      316.      316.                             00790
  .01      .01           .5       .5                                              00791
    .6       .5        .5                                                         00792
TOMS COMBINED SEWER MODEL EVALUATION HYPOTHETICAL CATCHMENT AREA                 00793
  4531    720.    5.01                                                            00794
     5.                                                                           00795
   .021      .063      .104      .146      .188      .229      .271      .313    00796
   .354      .396      .438      .479      .521      .563      .604      .646    00797
   .688      .729      .771      .813      .854      .896      .938      .979    00798
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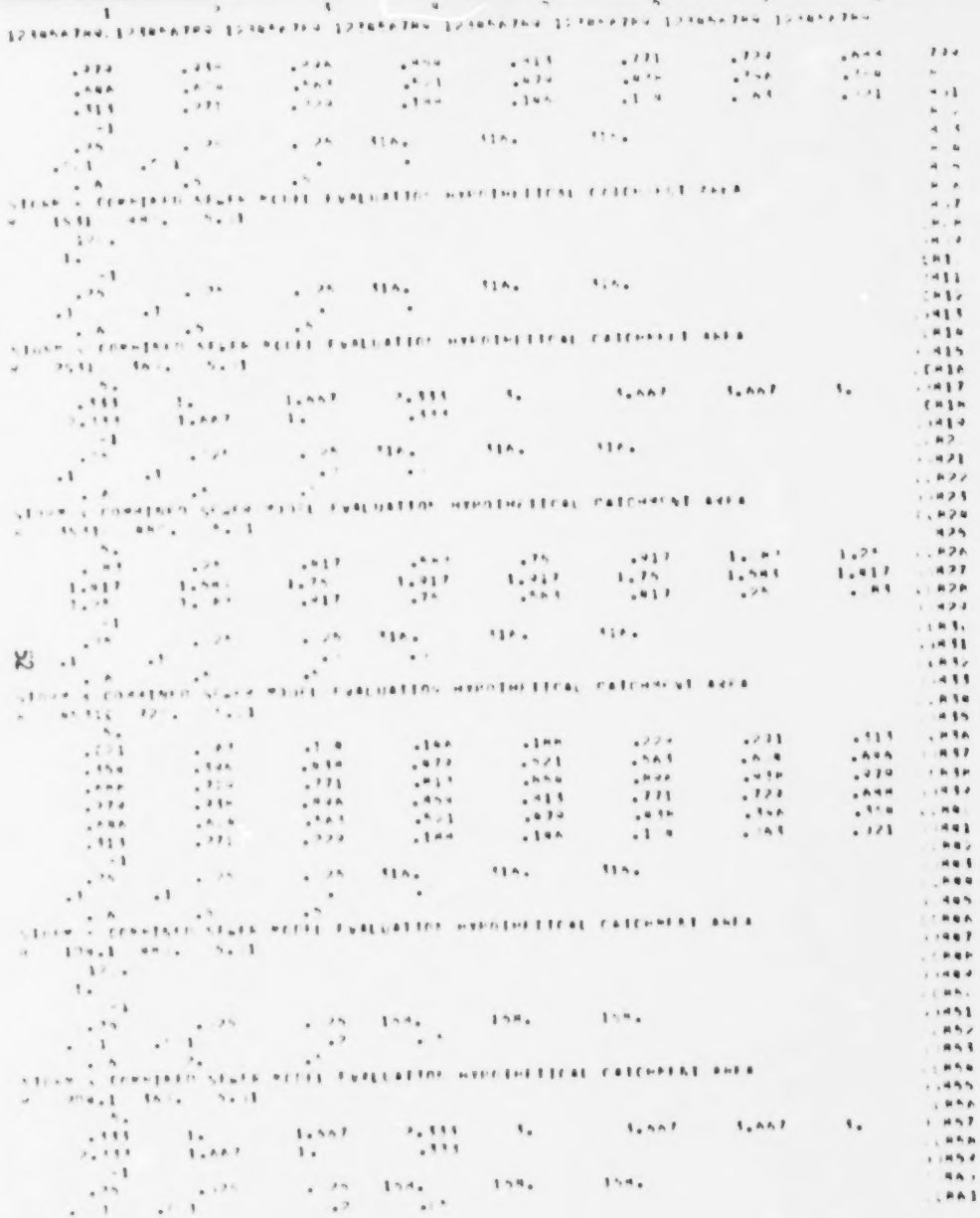

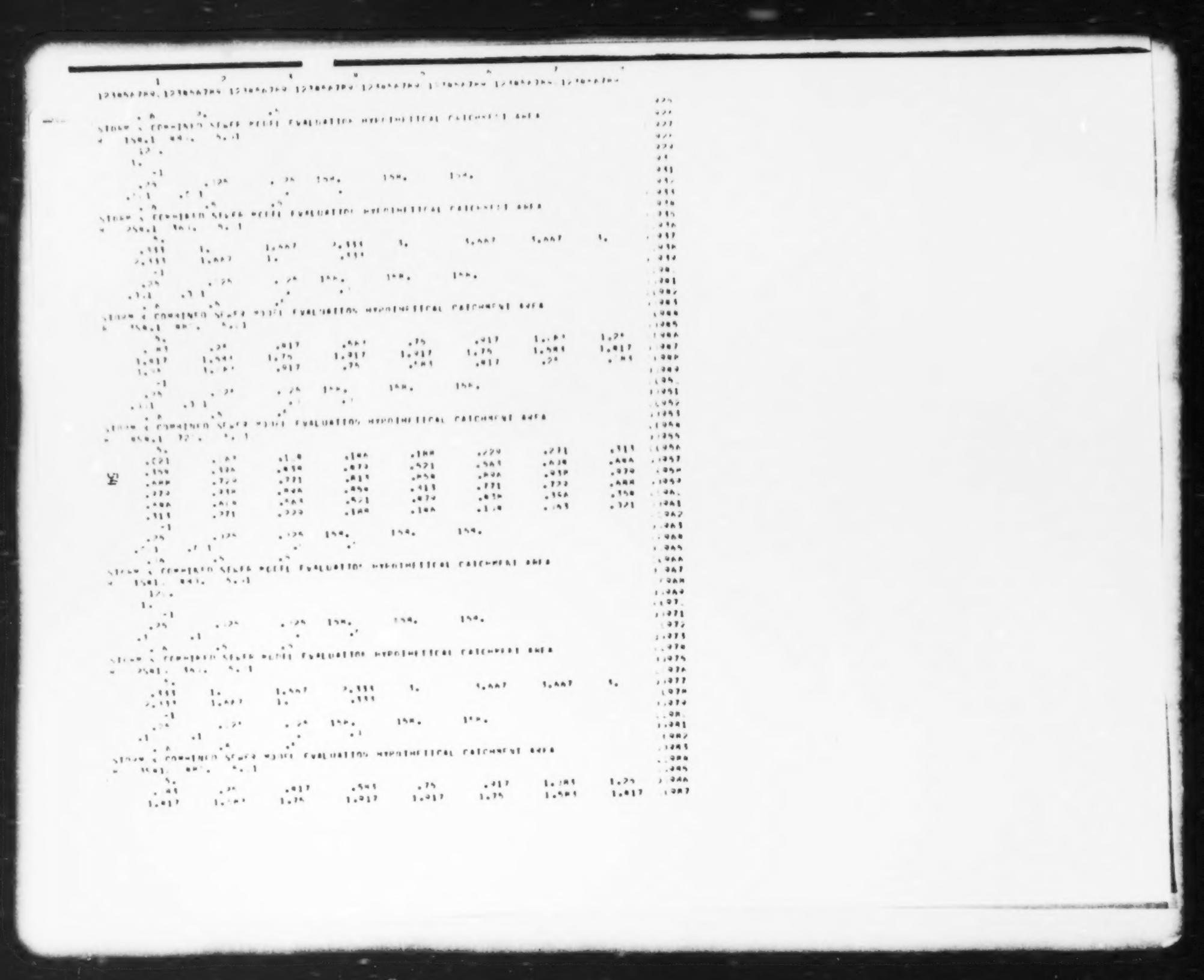

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       -1                                                                          00989
      .25      .125      .125   150.      150.      150.                           00990
    .1      .1               .1        .1                                          00991
      .6        .5        .5                                                       00992
STORM & COMBINED SEWER MODEL EVALUATION HYPOTHETICAL CATCHMENT AREA                00993
N   BASIC  725.    4.C1                                                            00994
       5.                                                                          00995
      .021     .063      .108      .146      .188      .229      .271      .313    00996
      .354     .396      .438      .479      .521      .563      .604      .646    00997
      .688     .729      .771      .813      .854      .896      .938      .979    00998
      .979     .938      .896      .854      .813      .771      .729      .688    00999
      .646     .604      .563      .521      .479      .438      .396      .354    01000
      .313     .271      .229      .188      .146      .108      .063      .021    01001
       -1                                                                          01002
      .25      .125      .125   150.      150.      150.                           01003
    .1      .1               .1        .1                                          01004
      .6        .5        .5                                                       01005
                                                                                   01006
                                                                                   01007
                                                                                   01008
                                                                                   01009
                                                                                   01010
                                                                                   01011
                                                                                   01012
                                                                                   01013
                                                                                   01014
                                                                                   01015
                                                                                   01016
                                                                                   01017
                                                                                   01018
                                                                                   01019
                                                                                   01020
```

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**************************************************************************

INPUT DATA TO CALCULATE RUNOFF FROM CATCHMENT AREAS DIFFERENT IMPERVIOUSNESS

**************************************************************************


STORM 4 COMBINED SEWER MODEL EVALUATION HYPOTHETICAL CATCHMENT AREA
          7245
 .01          .1      .3     1.0       1.        .1        .1          .1  3
          0   10    10    0    5    10.       .001
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NONE          5.    5.  6   2 360.    1.
NONE          5.    5.  3   1 483.    1.
NONE          5.    5.  8   4 72..    1.
   -1
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2 1.2              1.1     14                                           1   D1.1
2 2.1 2.2                  14  1                                        1   D1.1
2 2.2              2.1     14                                           1   D1.1
2 3.1 3.2                  14  1                                        1   D1.1
2 3.2              3.1     14                                           1   D1.1
2 4.1 4.2                  14  1                                        1   D1.1
2 4.2              4.1     14                                           1   D1.1
2 5.1 5.2                  14  1                                        1   D1.1
2 5.2              5.1     14                                           1   D1.1
2 6.1 6.2                  14  1                                        1   D110
2 6.2              6.1     14                                           1   D110
2 7.1 7.2                  14  1                                        1   D110
2 7.2              7.1     14                                           1   D110
2 8.1 8.2                  14  1                                        1   D110
2 8.2              8.1     14                                           1   D110
2 9.1 9.2                  14  1                                        1   D110
2 9.2              9.1     14                                           1   D110
210.110.2                  14  1                                        1   D110
210.2             10.1     14                                           1   D110
211.111.2                  14  1                                        1   S1.1
211.2             11.1     14                                           1   S1.1
212.112.2                  14  1                                        1   S1.1
212.2             12.1     14                                           1   S1.1
213.113.2                  14  1                                        1   S1.1
213.2             13.1     14                                           1   S1.1
214.114.2                  14  1                                        1   S1.1
214.2             14.1     14                                           1   S1.1
215.115.2                  14  1                                        1   S1.1
215.2             15.1     14                                           1   S1.1
216.116.2                  14  1                                        1   S110
216.2             16.1     14                                           1   S110
217.117.2                  14  1                                        1   S110
217.2             17.1     14                                           1   S110
218.118.2                  14  1                                        1   S110
218.2             18.1     14                                           1   S110
219.119.2                  14  1                                        1   S110
219.2             19.1     14                                           1   S110
220.120.2                  14  1                                        1   S110
220.2             20.1     14                                           1   S110
221.121.2                  14  1                                        2   D2.1
221.2             21.1     14                                           2   D2.1
```

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223.123.2                 14  1                                  2  02.1      00066
223.2          23.1       14                                     2  02.1      00067
224.124.2                 14  1                                  2  02.1      00068
224.2          24.1       14                                     2  02.1      00069
225.125.2                 14  1                                  2  02.1      00070
225.2          25.1       14                                     2  02.1      00071
226.126.2                 14  1                                  2  0210      00072
226.2          26.1       14                                     2  0210      00073
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227.2          27.1       14                                     2  0210      00075
228.128.2                 14  1                                  2  0210      00076
228.2          28.1       14                                     2  0210      00077
229.129.2                 14  1                                  2  0210      00078
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230.130.2                 14  1                                  2  0210      00080
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232.132.2                 14  1                                  2  S2.1      00084
232.2          32.1       14                                     2  S2.1      00085
233.133.2                 14  1                                  2  S2.1      00086
233.2          33.1       14                                     2  S2.1      00087
234.134.2                 14  1                                  2  S2.1      00088
234.2          34.1       14                                     2  S2.1      00089
235.135.2                 14  1                                  2  S2.1      00090
235.2          35.1       14                                     2  S2.1      00091
236.136.2                 14  1                                  2  S210      00092
236.2          36.1       14                                     2  S210      00093
237.137.2                 14  1                                  2  S210      00094
237.2          37.1       14                                     2  S210      00095
238.138.2                 14  1                                  2  S210      00096
238.2          38.1       14                                     2  S210      00097
239.139.2                 14  1                                  2  S210      00098
239.2          39.1       14                                     2  S210      00099
240.140.2                 14  1                                  2  S210      00100
240.2          40.1       14                                     2  S210      00101
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242.142.2                 14  1                                  3  03.1      00104
242.2          42.1       14                                     3  03.1      00105
243.143.2                 14  1                                  3  03.1      00106
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244.144.2                 14  1                                  3  03.1      00108
244.2          44.1       14                                     3  03.1      00109
245.145.2                 14  1                                  3  03.1      00110
245.2          45.1       14                                     3  03.1      00111
246.146.2                 14  1                                  3  0310      00112
246.2          46.1       14                                     3  0310      00113
247.147.2                 14  1                                  3  0310      00114
247.2          47.1       14                                     3  0310      00115
248.148.2                 14  1                                  3  0310      00116
248.2          48.1       14                                     3  0310      00117
249.149.2                 14  1                                  3  0310      00118
249.2          49.1       14                                     3  0310      00119
250.150.2                 14  1                                  3  0310      00120
250.2          50.1       14                                     3  0310      00121
251.151.2                 14  1                                  3  S3.1      00122
251.2          51.1       14                                     3  S3.1      00123
252.152.2                 14  1                                  3  S3.1      00124
252.2          52.1       14                                     3  S3.1      00125
253.153.2                 14  1                                  3  S3.1      00126
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 256.156.2              1A  1
 257.2          57.1    1A
 257.157.2              1A  1
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 258.158.2              1A  1
 259.2          59.1    1A
 259.159.2              1A  1
 25A.2          5A.1    1A
 25A.15A.2              1A  1
 25B.2          5B.1    1A
 25B.15B.2              1A  1
 25C.2          5C.1    1A
 25C.15C.2              1A  1
 25D.2          5D.1    1A
 25D.15D.2              1A  1
 25E.2          5E.1    1A
 25E.15E.2              1A  1
 25F.2          5F.1    1A
 25F.15F.2              1A  1
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 260.160.2              1A  1
 261.2          61.1    1A
 261.161.2              1A  1
 262.2          62.1    1A
 262.162.2              1A  1
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 26B.2          6B.1    1A
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 26C.16C.2              1A  1
 26D.2          6D.1    1A
 26D.16D.2              1A  1
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 26E.16E.2              1A  1
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 26F.16F.2              1A  1
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 270.170.2              1A  1
 271.2          71.1    1A
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 27C.2          7C.1    1A
 27C.17C.2              1A  1
 27D.2          7D.1    1A
 27D.17D.2              1A  1
 27E.2          7E.1    1A
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 27F.2          7F.1    1A
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 28D.18D.2              1A  1
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 28E.18E.2              1A  1
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 295.195.2              1A  1
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 29B.2          9B.1    1A
 29B.19B.2              1A  1
 29C.2          9C.1    1A
 29C.19C.2              1A  1
 29D.2          9D.1    1A
 29D.19D.2              1A  1
 29E.2          9E.1    1A
 29E.19E.2              1A  1
 29F.2          9F.1    1A
 29F.19F.2              1A  1
 2A0.2          A0.1    1A
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 2A1.2          A1.1    1A
 2A1.1A1.2              1A  1
 2A2.2          A2.1    1A
 2A2.1A2.2              1A  1
 2A3.2          A3.1    1A
 2A3.1A3.2              1A  1
 2A4.2          A4.1    1A
 2A4.1A4.2              1A  1
 2A5.2          A5.1    1A
 2A5.1A5.2              1A  1
 2A6.2          A6.1    1A
 2A6.1A6.2              1A  1
 2A7.2          A7.1    1A
 2A7.1A7.2              1A  1
 2A8.2          A8.1    1A
 2A8.1A8.2              1A  1
 2A9.2          A9.1    1A
 2A9.1A9.2              1A  1
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 2AA.1AA.2              1A  1
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 2AB.1AB.2              1A  1
 2AC.2          AC.1    1A
 2AC.1AC.2              1A  1
 2AD.2          AD.1    1A
 2AD.1AD.2              1A  1
 2AE.2          AE.1    1A
 2AE.1AE.2              1A  1
 2AF.2          AF.1    1A
 2AF.1AF.2              1A  1
 2B0.2          B0.1    1A
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 2B2.2          B2.1    1A
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 2B3.2          B3.1    1A
 2B3.1B3.2              1A  1
 2B4.2          B4.1    1A
 2B4.1B4.2              1A  1
 2B5.2          B5.1    1A
 2B5.1B5.2              1A  1
 2B6.2          B6.1    1A
 2B6.1B6.2              1A  1
 2B7.2          B7.1    1A
 2B7.1B7.2              1A  1
 2B8.2          B8.1    1A
 2B8.1B8.2              1A  1
 2B9.2          B9.1    1A
 2B9.1B9.2              1A  1
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 2BA.1BA.2              1A  1
 2BB.2          BB.1    1A
 2BB.1BB.2              1A  1
 2BC.2          BC.1    1A
 2BC.1BC.2              1A  1
 2BD.2          BD.1    1A
 2BD.1BD.2              1A  1
 2BE.2          BE.1    1A
 2BE.1BE.2              1A  1
 2BF.2          BF.1    1A
 2BF.1BF.2              1A  1
 2C0.2          C0.1    1A
 2C0.1C0.2              1A  1
 2C1.2          C1.1    1A
 2C1.1C1.2              1A  1
 2C2.2          C2.1    1A
 2C2.1C2.2              1A  1
 2C3.2          C3.1    1A
 2C3.1C3.2              1A  1
 2C4.2          C4.1    1A
 2C4.1C4.2              1A  1
 2C5.2          C5.1    1A
 2C5.1C5.2              1A  1
 2C6.2          C6.1    1A
 2C6.1C6.2              1A  1
 2C7.2          C7.1    1A
 2C7.1C7.2              1A  1
 2C8.2          C8.1    1A
 2C8.1C8.2              1A  1
 2C9.2          C9.1    1A
 2C9.1C9.2              1A  1
 2CA.2          CA.1    1A
 2CA.1CA.2              1A  1
 2CB.2          CB.1    1A
 2CB.1CB.2              1A  1
 2CC.2          CC.1    1A
 2CC.1CC.2              1A  1
 2CD.2          CD.1    1A
 2CD.1CD.2              1A  1
 2CE.2          CE.1    1A
 2CE.1CE.2              1A  1
 2CF.2          CF.1    1A
 2CF.1CF.2              1A  1
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 2D0.1D0.2              1A  1
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 2D1.1D1.2              1A  1
 2D2.2          D2.1    1A
 2D2.1D2.2              1A  1
 2D3.2          D3.1    1A
 2D3.1D3.2              1A  1
 2D4.2          D4.1    1A
 2D4.1D4.2              1A  1
 2D5.2          D5.1    1A
 2D5.1D5.2              1A  1
 2D6.2          D6.1    1A
 2D6.1D6.2              1A  1
 2D7.2          D7.1    1A
 2D7.1D7.2              1A  1
 2D8.2          D8.1    1A
 2D8.1D8.2              1A  1
 2D9.2          D9.1    1A
 2D9.1D9.2              1A  1
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 2DA.1DA.2              1A  1
 2DB.2          DB.1    1A
 2DB.1DB.2              1A  1
 2DC.2          DC.1    1A
 2DC.1DC.2              1A  1
 2DD.2          DD.1    1A
 2DD.1DD.2              1A  1
 2DE.2          DE.1    1A
 2DE.1DE.2              1A  1
 2DF.2          DF.1    1A
 2DF.1DF.2              1A  1
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 2E0.1E0.2              1A  1
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 2E1.1E1.2              1A  1
 2E2.2          E2.1    1A
 2E2.1E2.2              1A  1
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 2E3.1E3.2              1A  1
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 2E4.1E4.2              1A  1
 2E5.2          E5.1    1A
 2E5.1E5.2              1A  1
 2E6.2          E6.1    1A
 2E6.1E6.2              1A  1
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 2E7.1E7.2              1A  1
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 2E8.1E8.2              1A  1
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 2E9.1E9.2              1A  1
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 2EB.1EB.2              1A  1
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 2EC.1EC.2              1A  1
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 2ED.1ED.2              1A  1
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 2F1.1F1.2              1A  1
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 2F2.1F2.2              1A  1
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 2F3.1F3.2              1A  1
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 2F4.1F4.2              1A  1
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 2F5.1F5.2              1A  1
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 2F6.1F6.2              1A  1
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 2F7.1F7.2              1A  1
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 2F8.1F8.2              1A  1
 2F9.2          F9.1    1A
 2F9.1F9.2              1A  1
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 2FA.1FA.2              1A  1
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 2FC.1FC.2              1A  1
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 2FE.1FE.2              1A  1
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 2G0.1G0.2              1A  1
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 2G1.1G1.2              1A  1
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 2G2.1G2.2              1A  1
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 2G3.1G3.2              1A  1
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 2G4.1G4.2              1A  1
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 2G5.1G5.2              1A  1
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 2G6.1G6.2              1A  1
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 2G7.1G7.2              1A  1
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 2G8.1G8.2              1A  1
 2G9.2          G9.1    1A
 2G9.1G9.2              1A  1
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 2GA.1GA.2              1A  1
 2GB.2          GB.1    1A
 2GB.1GB.2              1A  1
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 2GC.1GC.2              1A  1
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 2GD.1GD.2              1A  1
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 2GE.1GE.2              1A  1
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 2GF.1GF.2              1A  1
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 2H1.1H1.2              1A  1
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 2H2.1H2.2              1A  1
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 2H3.1H3.2              1A  1
 2H4.2          H4.1    1A
 2H4.1H4.2              1A  1
 2H5.2          H5.1    1A
 2H5.1H5.2              1A  1
 2H6.2          H6.1    1A
 2H6.1H6.2              1A  1
 2H7.2          H7.1    1A
 2H7.1H7.2              1A  1
 2H8.2          H8.1    1A
 2H8.1H8.2              1A  1
 2H9.2          H9.1    1A
 2H9.1H9.2              1A  1
 2HA.2          HA.1    1A
 2HA.1HA.2              1A  1
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 2HB.1HB.2              1A  1
 2HC.2          HC.1    1A
 2HC.1HC.2              1A  1
 2HD.2          HD.1    1A
 2HD.1HD.2              1A  1
 2HE.2          HE.1    1A
 2HE.1HE.2              1A  1
 2HF.2          HF.1    1A
 2HF.1HF.2              1A  1
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 2I1.1I1.2              1A  1
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 2I2.1I2.2              1A  1
 2I3.2          I3.1    1A
 2I3.1I3.2              1A  1
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 2I4.1I4.2              1A  1
 2I5.2          I5.1    1A
 2I5.1I5.2              1A  1
 2I6.2          I6.1    1A
 2I6.1I6.2              1A  1
 2I7.2          I7.1    1A
 2I7.1I7.2              1A  1
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 2I8.1I8.2              1A  1
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 2I9.1I9.2              1A  1
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 2IA.1IA.2              1A  1
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 2IB.1IB.2              1A  1
 2IC.2          IC.1    1A
 2IC.1IC.2              1A  1
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 2ID.1ID.2              1A  1
 2IE.2          IE.1    1A
 2IE.1IE.2              1A  1
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 2IF.1IF.2              1A  1
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 2J1.1J1.2              1A  1
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 2J2.1J2.2              1A  1
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 2J3.1J3.2              1A  1
 2J4.2          J4.1    1A
 2J4.1J4.2              1A  1
 2J5.2          J5.1    1A
 2J5.1J5.2              1A  1
 2J6.2          J6.1    1A
 2J6.1J6.2              1A  1
 2J7.2          J7.1    1A
 2J7.1J7.2              1A  1
 2J8.2          J8.1    1A
 2J8.1J8.2              1A  1
 2J9.2          J9.1    1A
 2J9.1J9.2              1A  1
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 2JB.1JB.2              1A  1
 2JC.2          JC.1    1A
 2JC.1JC.2              1A  1
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 2JD.1JD.2              1A  1
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 2JE.1JE.2              1A  1
 2JF.2          JF.1    1A
 2JF.1JF.2              1A  1
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 2K1.1K1.2              1A  1
 2K2.2          K2.1    1A
 2K2.1K2.2              1A  1
 2K3.2          K3.1    1A
 2K3.1K3.2              1A  1
 2K4.2          K4.1    1A
 2K4.1K4.2              1A  1
 2K5.2          K5.1    1A
 2K5.1K5.2              1A  1
 2K6.2          K6.1    1A
 2K6.1K6.2              1A  1
 2K7.2          K7.1    1A
 2K7.1K7.2              1A  1
 2K8.2          K8.1    1A
 2K8.1K8.2              1A  1
 2K9.2          K9.1    1A
 2K9.1K9.2              1A  1
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 2KA.1KA.2              1A  1
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 2KB.1KB.2              1A  1
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 2KC.1KC.2              1A  1
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 2KD.1KD.2              1A  1
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 2KE.1KE.2              1A  1
 2KF.2          KF.1    1A
 2KF.1KF.2              1A  1
 2L0.2          L0.1    1A
 2L0.1L0.2              1A  1
 2L1.2          L1.1    1A
 2L1.1L1.2              1A  1
 2L2.2          L2.1    1A
 2L2.1L2.2              1A  1
 2L3.2          L3.1    1A
 2L3.1L3.2              1A  1
 2L4.2          L4.1    1A
 2L4.1L4.2              1A  1
 2L5.2          L5.1    1A
 2L5.1L5.2              1A  1
 2L6.2          L6.1    1A
 2L6.1L6.2              1A  1
 2L7.2          L7.1    1A
 2L7.1L7.2              1A  1
 2L8.2          L8.1    1A
 2L8.1L8.2              1A  1
 2L9.2          L9.1    1A
 2L9.1L9.2              1A  1
 2LA.2          LA.1    1A
 2LA.1LA.2              1A  1
 2LB.2          LB.1    1A
 2LB.1LB.2              1A  1
 2LC.2          LC.1    1A
 2LC.1LC.2              1A  1
 2LD.2          LD.1    1A
 2LD.1LD.2              1A  1
 2LE.2          LE.1    1A
 2LE.1LE.2              1A  1
 2LF.2          LF.1    1A
 2LF.1LF.2              1A  1
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 2M0.1M0.2              1A  1
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 2M1.1M1.2              1A  1
 2M2.2          M2.1    1A
 2M2.1M2.2              1A  1
 2M3.2          M3.1    1A
 2M3.1M3.2              1A  1
 2M4.2          M4.1    1A
 2M4.1M4.2              1A  1
 2M5.2          M5.1    1A
 2M5.1M5.2              1A  1
 2M6.2          M6.1    1A
 2M6.1M6.2              1A  1
 2M7.2          M7.1    1A
 2M7.1M7.2              1A  1
 2M8.2          M8.1    1A
 2M8.1M8.2              1A  1
 2M9.2          M9.1    1A
 2M9.1M9.2              1A  1
 2MA.2          MA.1    1A
 2MA.1MA.2              1A  1
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 2MB.1MB.2              1A  1
 2MC.2          MC.1    1A
 2MC.1MC.2              1A  1
 2MD.2          MD.1    1A
 2MD.1MD.2              1A  1
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 2ME.1ME.2              1A  1
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 2MF.1MF.2              1A  1
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 2N1.1N1.2              1A  1
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 2N2.1N2.2              1A  1
 2N3.2          N3.1    1A
 2N3.1N3.2              1A  1
 2N4.2          N4.1    1A
 2N4.1N4.2              1A  1
 2N5.2          N5.1    1A
 2N5.1N5.2              1A  1
 2N6.2          N6.1    1A
 2N6.1N6.2              1A  1
 2N7.2          N7.1    1A
 2N7.1N7.2              1A  1
 2N8.2          N8.1    1A
 2N8.1N8.2              1A  1
 2N9.2          N9.1    1A
 2N9.1N9.2              1A  1
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 2NB.1NB.2              1A  1
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 2NC.1NC.2              1A  1
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 2ND.1ND.2              1A  1
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 2NE.1NE.2              1A  1
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 2NF.1NF.2              1A  1
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 2O1.1O1.2              1A  1
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 2O2.1O2.2              1A  1
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 2O3.1O3.2              1A  1
 2O4.2          O4.1    1A
 2O4.1O4.2              1A  1
 2O5.2          O5.1    1A
 2O5.1O5.2              1A  1
 2O6.2          O6.1    1A
 2O6.1O6.2              1A  1
 2O7.2          O7.1    1A
 2O7.1O7.2              1A  1
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 2O8.1O8.2              1A  1
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 2O9.1O9.2              1A  1
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 2OB.1OB.2              1A  1
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 2OC.1OC.2              1A  1
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 2OD.1OD.2              1A  1
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 2OE.1OE.2              1A  1
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 2OF.1OF.2              1A  1
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 2P1.1P1.2              1A  1
 2P2.2          P2.1    1A
 2P2.1P2.2              1A  1
 2P3.2          P3.1    1A
 2P3.1P3.2              1A  1
 2P4.2          P4.1    1A
 2P4.1P4.2              1A  1
 2P5.2          P5.1    1A
 2P5.1P5.2              1A  1
 2P6.2          P6.1    1A
 2P6.1P6.2              1A  1
 2P7.2          P7.1    1A
 2P7.1P7.2              1A  1
 2P8.2          P8.1    1A
 2P8.1P8.2              1A  1
 2P9.2          P9.1    1A
 2P9.1P9.2              1A  1
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 2PA.1PA.2              1A  1
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 2PB.1PB.2              1A  1
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 2PC.1PC.2              1A  1
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 2PD.1PD.2              1A  1
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 2PE.1PE.2              1A  1
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 2PF.1PF.2              1A  1
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 2Q0.1Q0.2              1A  1
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 2Q1.1Q1.2              1A  1
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 2Q2.1Q2.2              1A  1
 2Q3.2          Q3.1    1A
 2Q3.1Q3.2              1A  1
 2Q4.2          Q4.1    1A
 2Q4.1Q4.2              1A  1
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 2Q5.1Q5.2              1A  1
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 2Q6.1Q6.2              1A  1
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 2Q7.1Q7.2              1A  1
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 2Q8.1Q8.2              1A  1
 2Q9.2          Q9.1    1A
 2Q9.1Q9.2              1A  1
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 2QA.1QA.2              1A  1
 2QB.2          QB.1    1A
 2QB.1QB.2              1A  1
 2QC.2          QC.1    1A
 2QC.1QC.2              1A  1
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 2QD.1QD.2              1A  1
 2QE.2          QE.1    1A
 2QE.1QE.2              1A  1
 2QF.2          QF.1    1A
 2QF.1QF.2              1A  1
 2R0.2          R0.1    1A
 2R0.1R0.2              1A  1
 2R1.2          R1.1    1A
 2R1.1R1.2              1A  1
 2R2.2          R2.1    1A
 2R2.1R2.2              1A  1
 2R3.2          R3.1    1A
 2R3.1R3.2              1A  1
 2R4.2          R4.1    1A
 2R4.1R4.2              1A  1
 2R5.2          R5.1    1A
 2R5.1R5.2              1A  1
 2R6.2          R6.1    1A
 2R6.1R6.2              1A  1
 2R7.2          R7.1    1A
 2R7.1R7.2              1A  1
 2R8.2          R8.1    1A
 2R8.1R8.2              1A  1
 2R9.2          R9.1    1A
 2R9.1R9.2              1A  1
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 2RA.1RA.2              1A  1
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 2RB.1RB.2              1A  1
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 2RC.1RC.2              1A  1
 2RD.2          RD.1    1A
 2RD.1RD.2              1A  1
 2RE.2          RE.1    1A
 2RE.1RE.2              1A  1
 2RF.2          RF.1    1A
 2RF.1RF.2              1A  1
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 2S0.1S0.2              1A  1
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 2S1.1S1.2              1A  1
 2S2.2          S2.1    1A
 2S2.1S2.2              1A  1
 2S3.2          S3.1    1A
 2S3.1S3.2              1A  1
 2S4.2          S4.1    1A
 2S4.1S4.2              1A  1
 2S5.2          S5.1    1A
 2S5.1S5.2              1A  1
 2S6.2          S6.1    1A
 2S6.1S6.2              1A  1
 2S7.2          S7.1    1A
 2S7.1S7.2              1A  1
 2S8.2          S8.1    1A
 2S8.1S8.2              1A  1
 2S9.2          S9.1    1A
 2S9.1S9.2              1A  1
 2SA.2          SA.1    1A
 2SA.1SA.2              1A  1
 2SB.2          SB.1    1A
 2SB.1SB.2              1A  1
 2SC.2          SC.1    1A
 2SC.1SC.2              1A  1
 2SD.2          SD.1    1A
 2SD.1SD.2              1A  1
 2SE.2          SE.1    1A
 2SE.1SE.2              1A  1
 2SF.2          SF.1    1A
 2SF.1SF.2              1A  1
 2T0.2          T0.1    1A
 2T0.1T0.2              1A  1
 2T1.2          T1.1    1A
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 2T4.1T4.2              1A  1
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 2T5.1T5.2              1A  1
 2T6.2          T6.1    1A
 2T6.1T6.2              1A  1
 2T7.2          T7.1    1A
 2T7.1T7.2              1A  1
 2T8.2          T8.1    1A
 2T8.1T8.2              1A  1
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 2V6.1V6.2              1A  1
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 2W5.1W5.2              1A  1
 2W6.2          W6.1    1A
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 2W7.1W7.2              1A  1
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CORSCH CONSULT HYDROGRAPH-VOLUME METHOD

SELECTED OUTPUT OF HYPOTHETICAL CATCHMENT SIMULATION

INPUT DATA

TIME	(MIN)	5.	10.	15.	20.	25.	30.	60.	80.	85.
INTENSITY	(IN/HR)	.83	.75	.92	.58	.75	.92	1.08	1.25	1.92
TIME	(MIN)	90.	95.	100.	105.	110.	115.	120.	125.	130.
INTENSITY	(IN/HR)	1.58	1.75	1.92	1.92	1.75	1.58	1.42	1.25	1.08
TIME	(MIN)	135.	140.	145.	150.	155.	160.			
INTENSITY	(IN/HR)	.92	.75	.58	.42	.25	.10			

OUTPUT DATA

TIME	PERVIOUS(LAWNS)		IMPERVIOUS(STREETS)		IMPERVIOUS(ROOFS)	
(MIN)	DEPTH(IN)	Q(IN/HR)	DEPTH(IN)	Q(IN/HR)	DEPTH(IN)	Q(IN/HR)
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.000
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.000
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.000
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.111	.000
[illegible]	[illegible]	[illegible]	.113	[illegible]	.178	.000
[illegible]	[illegible]	[illegible]	.171	.228	[illegible]	.000
[illegible]	[illegible]	[illegible]	.229	.392	.340	.000
[illegible]	[illegible]	[illegible]	.288	[illegible]	.445	.000
[illegible]	[illegible]	[illegible]	.335	[illegible]	.563	.000
[illegible]	[illegible]	[illegible]	.381	[illegible]	.695	.000
[illegible]	[illegible]	[illegible]	.428	1.283	.881	.000
[illegible]	[illegible]	[illegible]	.462	1.456	1.001	.000
[illegible]	[illegible]	[illegible]	.486	1.627	1.160	.000
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[illegible]	.414	[illegible]	.228	.536	2.001	.000
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2.001	.000

S U M M A R Y

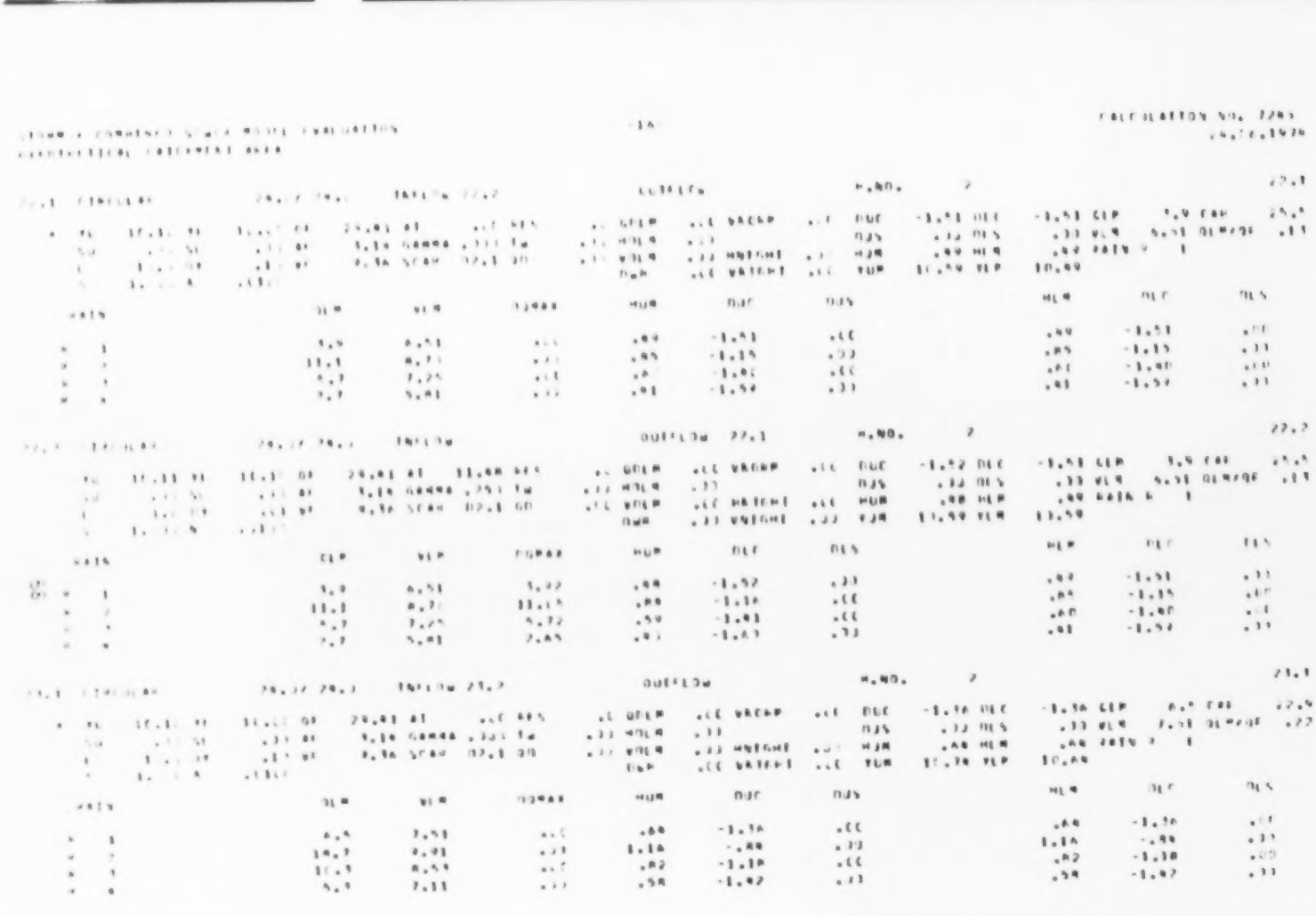
		PERVIOUS(LEAVES)	IMPERVIOUS(IMPERVIOUS)	IMPERVIOUS(ROOFS)
PRECIPITATION	(IN)	2.32	2.32	2.30
LOSS	(IN)	1.83	.45	.40
RUNOFF	(IN)	.18	1.98	.80
EVAPOTRANSPIRATION	(IN)	.31	.01	2.00
INFILTRATION	(IN)	.31	.31	.00

COMPUTER SEWER SYSTEM SIMULATION

DORSCH CONSULT LTD.
CONSULTING ENGINEERS
TORONTO
ONTARIO

NUMBER OF SEWER SECTIONS		160
NUMBER OF OVERFLOW STRUCTURES		0
NUMBER OF RETENTION STRUCTURES		0
TOTAL LENGTH OF SEWER SYSTEM	(MILES)	.10
TOTAL SEWER STORAGE VOLUME	(1,000 CU.FT.)	1.43
TOTAL RETENTION STRUCTURE VOLUME	(1,000 CU.FT.)	.00
MANNINGS N		.0100
MEDIUM IMPERVIOUSNESS DEGREE		.500
NUMBER OF RESIDENTS		0
TOTAL DRAINAGE AREA	(ACRES)	505.19
PER CAPITA SEWAGE FLOW	(G.P.C.D.)	.0
GROUNDWATER INFILTRATION	(GALL/HOMI*IN DIA)	.0
TOTAL DRY WEATHER FLOW	(CU.FT./SEC.)	.00
TOTAL INDUSTRIAL WASTE WATER FLOW	(CU.FT./SEC.)	.00
TOTAL GROUNDWATER INFILTRATION	(CU.FT./SEC.)	.00
PEAK D.W.FLOW / AVERAGE D.W.FLOW		0.
NIGHT D.W.FLOW / AVERAGE D.W.FLOW		0.

		1.)	2.)	3.)	4.)
RAIN DESIGNATION		R 1	R 2	R 3	R 4
CALCULATION DURATION	(MIN.)	480.0	360.0	480.0	720.0
TIME INCREMENT	(MIN.)	5.0	5.0	5.0	5.0
RECURRENCE FREQUENCY	(PER YEAR)	NONE	NONE	NONE	NONE



23.2 CIRCULAR 24.0/ 24.0 INFLOW OUTFLOW 23.1 R.NO. 2 23.2

YU	10.11	YI	10.1	QF	29.41	AT	11.48	RES	.0	QDLM	.00	VNORM	.00	DUC	-1.37	DLC	-1.36	QLM	6.5	CAP	22.9
SU	.00	SI	.00	AF	3.14	GAMMA	.500	TW	.00	HDLM	.00			DUS	.00	DLS	.00	VLM	7.51	QLM/QF	.22
L	1.00	DY	.01	VF	9.36	SCAR	D2.1	QD	.00	VDLM	.00	HNIGHT	.00	HUM	.63	HLM	.64	RAIN R	1		
S	1.000	N	.0100							DWR	.00	VNIGHT	.00	YUM	10.74	YLM	10.74				

RAIN	QLM	VLM	DQMAX	HUM	DUC	DUS	HLM	DLC	DLS
R 1	6.5	7.51	6.46	.63	-1.37	.00	.64	-1.36	.00
R 2	18.7	9.91	18.68	1.15	-.85	.00	1.16	-.84	.00
R 3	10.3	8.53	10.28	.81	-1.19	.00	.82	-1.18	.00
R 4	5.3	7.11	5.33	.57	-1.43	.00	.58	-1.42	.00

24.1 CIRCULAR 24.0/ 24.0 INFLOW 24.2 OUTFLOW R.NO. 2 24.1

YU	10.10	YI	10.00	QF	29.41	AT	.00	RES	.0	QDLM	.00	VNORM	.00	DUC	-1.24	DLC	-1.24	QLM	9.0	CAP	20.4
SU	.00	SI	.00	AF	3.14	GAMMA	.000	TW	.00	HDLM	.00			DUS	.00	DLS	.00	VLM	8.23	QLM/QF	.31
L	1.00	DY	.01	VF	9.36	SCAR	D2.1	QD	.00	VDLM	.00	HNIGHT	.00	HUM	.76	HLM	.76	RAIN R	1		
S	1.000	N	.0100							DWR	.00	VNIGHT	.00	YUM	10.86	YLM	10.76				

RAIN	QLM	VLM	DQMAX	HUM	DUC	DUS	HLM	DLC	DLS
R 1	9.0	8.23	.00	.76	-1.24	.00	.76	-1.24	.00
R 2	26.6	10.60	.00	1.49	-.51	.00	1.49	-.51	.00
R 3	14.9	9.40	.00	1.01	-.99	.00	1.01	-.99	.00
R 4	8.0	7.96	.00	.71	-1.29	.00	.71	-1.29	.00

24.2 CIRCULAR 24.0/ 24.0 INFLOW OUTFLOW 24.1 R.NO. 2 24.2

YU	10.11	YI	10.10	QF	29.41	AT	11.48	RES	.0	QDLM	.00	VNORM	.00	DUC	-1.25	DLC	-1.24	QLM	9.0	CAP	20.4
SU	.00	SI	.00	AF	3.14	GAMMA	.750	TW	.00	HDLM	.00			DUS	.00	DLS	.00	VLM	8.23	QLM/QF	.31
L	1.00	DY	.01	VF	9.36	SCAR	D2.1	QD	.00	VDLM	.00	HNIGHT	.00	HUM	.75	HLM	.76	RAIN R	1		
S	1.000	N	.0100							DWR	.00	VNIGHT	.00	YUM	10.86	YLM	10.86				

RAIN	QLM	VLM	DQMAX	HUM	DUC	DUS	HLM	DLC	DLS
R 1	9.0	8.23	9.04	.75	-1.25	.00	.76	-1.24	.00
R 2	26.6	10.61	26.63	1.48	-.52	.00	1.49	-.51	.00
R 3	14.9	9.40	14.94	1.00	-1.00	.00	1.01	-.99	.00
R 4	8.0	7.96	7.98	.70	-1.30	.00	.71	-1.29	.00

STORM & DRAINAGE SYSTEM EVALUATION
HYDROMETEOROLOGICAL VALIDATION DATA

DATA					DATA					DATA					DATA			
P6.1																		
	T	QPL	GU	PU	T	QPU	GU	PU	T	QPL	GU	PU	T	QPL	GL	PU
	.1	.1	.1	.1	.3	.3	.1	.13	.3	.1	.1	.03	.3	.1	.1	.33
	.1	.1	.1	.16	9.6	.3	.1	.5	9.6	.3	.1	.2C	9.6	.1	.1	.66
	.1	.1	.1	.17	13.3	.3	.1	.19	13.3	.3	.1	.33	13.3	.1	.1	.33
13.3	.1	.1	.17	15.6	.3	.1	.26	15.6	.3	.1	.33	15.6	.1	.1	.00
15.	.1	1.1	.22	19.3	.3	1.1	.26	19.3	.3	.1	.13	19.3	.1	.1	.33
19.3	.1	1.1	.18	23.3	.3	1.1	.47	23.3	.3	.1	.13	23.3	.1	.1	.33
23.	.1	1.1	.06	25.6	.6	7.1	.68	25.6	.6	.6	.2C	25.6	.1	.1	.00
25.6	.1	1.1	.03	33.3	.3	12.1	.93	33.3	.3	1.1	.59	33.3	.3	.3	.33
33.3	.1	1.1	.03	35.6	.3	16.6	1.17	35.6	.6	2.1	.39	35.6	.6	.1	.07
35.	.1	1.1	.03	39.3	.3	18.6	1.16	39.3	.1	3.1	.4A	39.3	.3	.2	.12
39.3	.1	1.1	.55	43.3	.3	18.7	1.16	43.3	.1	3.1	.4A	43.3	.3	.4	.17
43.	.1	1.1	.03	45.6	.3	18.1	1.19	45.6	.6	6.1	.58	45.6	.6	.6	.17
45.6	.1	1.1	.58	53.3	.3	18.5	1.37	53.3	.1	5.1	.61	53.3	.3	.8	.21
53.3	.1	1.1	.58	55.6	.6	18.6	.97	55.6	.6	7.2	.68	55.6	.6	.6	.25
55.	.1	1.1	.59	59.3	.6	18.6	.97	59.3	.3	8.5	.71	63.3	.3	1.2	.28
63.3	.1	1.1	.58	63.3	.3	18.8	.98	63.3	.3	9.6	.79	65.6	.6	1.6	.32
65.	.1	1.1	.6C	65.6	.6	7.8	.72	65.6	.6	9.6	.79	73.3	.3	1.9	.35
73.3	.1	1.1	.61	73.3	.3	5.8	.61	73.3	.3	13.2	.81	75.6	.6	2.3	.38
75.	.1	1.1	.6C	75.6	.6	4.3	.53	75.6	.6	13.1	.82	83.3	.3	2.6	.43
83.3	.1	1.1	.61	83.3	.3	3.9	.46	83.3	.3	13.3	.81	85.6	.6	2.9	.43
85.	.1	1.1	.61	85.6	.6	2.3	.41	85.6	.6	9.6	.79	93.3	.3	3.2	.45
93.3	.1	1.1	.61	93.3	.3	2.2	.39	93.3	.3	9.3	.77	95.6	.6	3.5	.47
95.	.1	1.1	.62	95.6	.6	1.7	.36	95.6	.6	8.8	.76	103.3	.3	3.8	.49
103.3	.1	1.1	.62	103.3	.3	1.6	.31	103.3	.3	7.5	.69	105.6	.6	4.1	.50
105.	.1	1.2	.62	105.6	.6	1.1	.28	105.6	.6	6.3	.66	113.3	.3	4.4	.52
113.3	.1	1.1	.61	113.3	.3	.9	.24	113.3	.3	5.8	.63	115.6	.6	4.7	.54
115.	.1	1.0	.61	115.6	.6	.8	.24	115.6	.6	4.8	.55	123.3	.3	4.9	.56
123.3	.1	1.0	.60	123.3	.3	.6	.22	123.3	.3	3.9	.49	125.6	.6	5.2	.57
125.	.1	1.0	.59	125.6	.6	.5	.2C	125.6	.6	3.6	.46	133.3	.3	5.5	.57
133.3	.1	1.0	.57	133.3	.3	.4	.18	133.3	.3	2.8	.38	135.6	.6	5.8	.58
135.	.1	2.0	.56	135.6	.6	.3	.17	135.6	.6	1.8	.35	143.3	.3	6.1	.58
143.3	.1	2.0	.56	143.3	.3	.3	.15	143.6	.6	1.5	.31	145.6	.6	6.3	.58
145.	.1	1.7	.55	145.3	.3	.3	.14	145.3	.3	1.2	.29	153.3	.3	6.6	.57
153.3	.1	1.0	.5C	153.6	.6	.2	.13	153.6	.6	.9	.27	155.6	.6	6.8	.57
155.	.1	1.1	.27	155.3	.3	.2	.13	155.3	.3	.7	.25	163.3	.3	6.8	.56
163.3	.1	.9	.26	163.6	.6	.2	.12	163.6	.6	.6	.22	165.6	.6	6.9	.55
165.	.1	.9	.26	165.3	.3	.2	.11	165.3	.3	.5	.21	173.3	.3	6.9	.55
173.3	.1	.8	.22	173.6	.6	.1	.11	173.6	.6	.4	.19	175.6	.6	6.2	.53
175.	.1	.8	.21	175.3	.3	.1	.11	175.3	.3	.4	.17	183.3	.3	6.3	.52
183.3	.1	.8	.19	183.6	.6	.1	.11	183.6	.6	.3	.16	185.6	.6	6.4	.51
185.	.1	.8	.18	185.3	.3	.1	.11	185.3	.3	.3	.15	185.3	.3	6.6	.53
193.3	.1	.8	.17	193.6	.6	.1	.10	193.6	.6	.3	.13	193.6	.6	6.8	.54
195.	.1	.8	.15	195.3	.3	.1	.10	195.3	.3	.2	.13	195.3	.3	7.1	.57
203.3	.1	.8	.15	203.6	.6	.1	.09	203.6	.6	.2	.13	203.6	.6	2.5	.85
205.	.1	.8	.14	205.3	.3	.1	.09	205.3	.3	.2	.12	205.3	.3	2.6	.81
213.3	.1	.7	.14	213.6	.6	.1	.09	213.6	.6	.2	.12	213.6	.6	2.8	.80
215.	.1	.7	.13	215.3	.3	.1	.08	215.3	.3	.2	.11	215.3	.3	2.2	.57
223.3	.1	.7	.12	223.6	.6	.1	.08	223.6	.6	.1	.11	223.6	.6	1.9	.37
225.	.1	.7	.11	225.3	.3	.1	.08	225.3	.3	.1	.13	225.3	.3	1.7	.33
233.3	.1	.6	.11	233.6	.6	.1	.07	233.6	.6	.1	.1C	233.6	.6	1.5	.35
235.	.1	.6	.11	235.3	.3	.1	.07	235.3	.3	.1	.09	235.3	.3	1.3	.31
243.3	.1	.6	.1C	243.6	.6	.1	.07	243.6	.6	.1	.09	243.6	.6	1.1	.29
245.	.1	.6	.1C	245.3	.3	.1	.07	245.3	.3	.1	.09	245.3	.3	.9	.25
253.3	.1	.5	.1C	253.6	.6	.1	.07	253.6	.6	.1	.09	253.6	.6	.8	.23
255.	.1	.5	.1C	255.3	.3	.1	.06	255.3	.3	.1	.08	255.3	.3	.6	.22
263.3	.1	.5	.09	263.6	.6	.1	.06	263.6	.6	.1	.08	263.6	.6	.6	.21
265.	.1	.5	.09	265.3	.3	.1	.06	265.3	.3	.1	.08	265.3	.3	.5	.19

DORSCH CONSULT HYDROGRAPH-VOLUME METHOD

INPUT DATA LISTING FOR HYPOTHETICAL PIPE SIMULATION

```
         1         2         3         4         5         6         7         8
1234567890123456789012345678901234567890123456789012345678901234567890123456789O

1 238 24. 24. 200.   13.9     13.8                        [illegible]  [illegible]
1 239 24. 24. 200.   14.0     13.9                        [illegible]  [illegible]
1 240 24. 24. 200.   14.1     14.                         [illegible]  [illegible]
1 241 24. 24. 200.   14.2     14.1                        [illegible]  [illegible]
1 242 24. 24. 200.   14.3     14.2                        [illegible]  [illegible]
1 243 24. 24. 200.   14.4     14.3                        [illegible]  [illegible]
1 244 24. 24. 200.   14.5     14.4                        [illegible]  [illegible]
1 245 24. 24. 200.   14.6     14.5                        [illegible]  [illegible]
1 246 24. 24. 200.   14.7     14.6                        [illegible]  [illegible]
1 247 24. 24. 200.   14.8     14.7                        [illegible]  [illegible]
1 248 24. 24. 200.   14.9     14.8                        [illegible]  [illegible]
1 249 24. 24. 200.   15.0     14.9                        [illegible]  [illegible]
1 250 24. 24. 200.   15.1     15.0                        [illegible]  [illegible]
1 251 12.  24.   2.  15.111  15.1
1 252 24.  24.   2.  15.102  15.101
1 253 24.  24.   2.  15.112  15.111
 ENDE
STORM 4 COMBINED SEWER MODEL EVALUATION HYPOTHETICAL PIPE NETWORK
          9652
 .01  NONE     .3       .3       1.      1.      .1      .1      .1  1
    1          40   40    L    5    2.0        .001
 NONE 3 .   5.   5.  SH. 1          1.
 NONE       2.5  5.0 SH. 2 240.     .0
 NONE       5.   5.  SH. 3 360.    1.5
 NONE       5.   5.  SH. 4 480.    1.5
   -1
2   40  4                   41  14
2 4110  4                   14  14
2 401 402         4  4      14
2 402 403          401      14
2 403 404          402      14
2 404 405          403      14
2 405 406          404      14
2 406 407          405      14
2 407 408          406      14
2 408 409          407      14
2 409 410          408      14
2 410 411          409      14  1
2 411 412          410      14
2 412 413          411      14
2 413 414          412      14
2 414 415          413      14
2 415 416          414      14
2 416 417          415      14
2 417 418          416      14
2 418 419          417      14
2 419 420          418      14
2 420 421          419      14  1
2 421 422          420      14
2 422 423          421      14
2 423 424          422      14
2 424 425          423      14
2 425 426          424      14
2 426 427          425      14
2 427 428          426      14
2 428 429          427      14
2 429 430          428      14
2 430 431          429      14  1
2 431 432          430      14
2 432 433          431      14
2 433 434          432      14
2 434 435          433      14
2 435 436          434      14
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         1         2         3         4         5         6         7         8
1234567890123456789012345678901234567890123456789012345678901234567890123456789012

1 436 24. 24.  200.   47.      46.                                  670.     670.
1 437 24. 24.  211.   48.      47.                                  670.     670.
1 438 24. 24.  200.   49.      48.                                  670.     670.
1 439 24. 24.  211.   50.      49.                                  670.     670.
1 440 24. 24.  200.   51.      50.                                  670.     670.
1 441 24. 24.  211.   52.      51.                                  670.     670.
1 442 24. 24.  200.   53.      52.                                  670.     670.
1 443 24. 24.  211.   54.      53.                                  670.     670.
1 444 24. 24.  200.   55.      54.                                  670.     670.
1 445 24. 24.  211.   56.      55.                                  670.     670.
1 446 24. 24.  200.   57.      56.                                  670.     670.
1 447 24. 24.  211.   58.      57.                                  670.     670.
1 448 24. 24.  200.   59.      58.                                  670.     670.
1 449 24. 24.  211.   60.      59.                                  670.     670.
1 450 24. 24.  200.   61.      60.                                  670.     670.
1 451 12.  24.    .2  61.001  61.
1 452 24.  24.   2.   61.11   61.1
1 453 24.  24.    .2  61.002  61.001
 ENDE
STORM 4 COMBINED SEWER MODEL EVALUATION HYPOTHETICAL PIPE NETWORK
          9652
 .01  NONE     .0        .1      1.       1.       .1       .1      .1  1
   1          60   40     0    5     300.      .001    0     0
 NONE 30.    5.   5.  SH. 1         1.
NONE         2.5  5.0 SH. 2 240.    2.
NONE         5.0  5.0 SH. 3 360.    2.
NONE         5.0  5.0 SH. 4 480.    2.
   -1
2   6R  6                    61  14
2 610R  6                    14  14
2 601 602        8  6        14
2 602 603         601        14
2 603 604         602        14
2 604 605         603        14
2 605 606         604        14
2 606 607         605        14
2 607 608         606        14
2 608 609         607        14
2 609 610         608        14
2 610 611         609        14  1
2 611 612         610        14
2 612 613         611        14
2 613 614         612        14
2 614 615         613        14
2 615 616         614        14
2 616 617         615        14
2 617 618         616        14
2 618 619         617        14
2 619 620         618        14
2 620 621         619        14  1
2 621 622         620        14
2 622 623         621        14
2 623 624         622        14
2 624 625         623        14
2 625 626         624        14
2 626 627         625        14
2 627 628         626        14
2 628 629         627        14
2 629 630         628        14
2 630 631         629        14  1
2 631 632         630        14
2 632 633         631        14
2 633 634         632        14
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123456789012345678901234567890123456789012345678901234567890123456789012345678

2 634 635        633   14
2 635 636        634   14
2 636 637        635   14
2 637 638        636   14
2 638 639        637   14
2 639 640        638   14
2 640 641        639   14  1
2 641 642        640   14
2 642 643        641   14
2 643 644        642   14
2 644 645        643   14
2 645 646        644   14
2 646 647        645   14
2 647 648        646   14
2 648 649        647   14
2 649 650        648   14
2 650 651        649   14  1
2 651B  6        650   42   4
2 652B  6              14   4
2 653           8  6   14  24
 R  6 611        611  6  1
 B  6 653        651 652  1
 ENDE
 653      SH. 1     SH. 19652
 653      SH. 2     SH. 29652
 653      SH. 3     SH. 39652
 653      SH. 4     SH. 49652
ENDE
1   6 12.  24.  12.   21.0    21.0
1 600 12.  12.  12.   20.000  19.5
1 601 24. 24.  200.   30.     20.                          576.   576.
1 602 24. 24.  200.   40.     30.                          576.   576.
1 603 24. 24.  200.   50.     40.                          576.   576.
1 604 24. 24.  200.   60.     50.                          576.   576.
1 605 24. 24.  200.   70.     60.                          576.   576.
1 606 24. 24.  200.   80.     70.                          576.   576.
1 607 24. 24.  200.   90.     80.                          576.   576.
1 608 24. 24.  200.  100.     90.                          576.   576.
1 609 24. 24.  200.  110.    100.                          576.   576.
1 610 24. 24.  200.  120.    110.                          576.   576.
1 611 24. 24.  200.  130.    120.                          576.   576.
1 612 24. 24.  200.  140.    130.                          576.   576.
1 613 24. 24.  200.  150.    140.                          576.   576.
1 614 24. 24.  200.  160.    150.                          576.   576.
1 615 24. 24.  200.  170.    160.                          576.   576.
1 616 24. 24.  200.  180.    170.                          576.   576.
1 617 24. 24.  200.  190.    180.                          576.   576.
1 618 24. 24.  200.  200.    190.                          576.   576.
1 619 24. 24.  200.  210.    200.                          576.   576.
1 620 24. 24.  200.  220.    210.                          576.   576.
1 621 24. 24.  200.  230.    220.                          576.   576.
1 622 24. 24.  200.  240.    230.                          576.   576.
1 623 24. 24.  200.  250.    240.                          576.   576.
1 624 24. 24.  200.  260.    250.                          576.   576.
1 625 24. 24.  200.  270.    260.                          576.   576.
1 626 24. 24.  200.  280.    270.                          576.   576.
1 627 24. 24.  200.  290.    280.                          576.   576.
1 628 24. 24.  200.  300.    290.                          576.   576.
1 629 24. 24.  200.  310.    300.                          576.   576.
1 630 24. 24.  200.  320.    310.                          576.   576.
1 631 24. 24.  200.  330.    320.                          576.   576.
1 632 24. 24.  200.  340.    330.                          576.   576.
1 633 24. 24.  200.  350.    340.                          576.   576.
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         1         2         3         4         5         6         7         8
1234567890123456789012345678901234567890123456789012345678901234567890123456789012

1 634 28. 28.  200.  360.    350.                               578.    578.
1 635 28. 28.  210.  370.    360.                               578.    578.
1 636 28. 28.  200.  380.    370.                               578.    578.
1 637 28. 28.  210.  390.    380.                               578.    578.
1 638 28. 28.  200.  400.    390.                               578.    578.
1 639 28. 28.  210.  410.    400.                               578.    578.
1 640 28. 28.  200.  420.    410.                               578.    578.
1 641 28. 28.  210.  430.    420.                               578.    578.
1 642 28. 28.  200.  440.    430.                               578.    578.
1 643 28. 28.  210.  450.    440.                               578.    578.
1 644 28. 28.  200.  460.    450.                               578.    578.
1 645 28. 28.  210.  470.    460.                               578.    578.
1 646 28. 28.  200.  480.    470.                               578.    578.
1 647 28. 28.  210.  490.    480.                               578.    578.
1 648 28. 28.  200.  500.    490.                               578.    578.
1 649 28. 28.  210.  510.    500.                               578.    578.
1 650 28. 28.  200.  520.    510.                               578.    578.
1 651 12.  28.   .2  521.11  521.
1 652 28.  28.   1.    521.9   521.8
1 653 28.  28.    .2 521.32  521.31
 ENDF
STORM & COMBINED SEWER MODEL EVALUATION HYPOTHETICAL PIPE NETWORK
          9652
 .01  NONE    .3       .3      1.       1.       .1       .1      .1  1
   1          40   40   0    5     30.0      .001    [illegible]
 NONE 30.   5.   5.  SH. 1        1.
 NONE       2.5  5.0 SH. 2 240.   1.
 NONE       5.   5.  SH. 3 360.   1.
 NONE       5.   5.  SH. 4 480.   1.
  -1
2   A8  8                A1  14
2 A01A  8                14  14
2 A01 A02       8   8    14
2 A02 A03        A01     14
2 A03 A04        A02     14
2 A04 A05        A03     14
2 A05 A06        A04     14
2 A06 A07        A05     14
2 A07 A08        A06     14
2 A08 A09        A07     14
2 A09 A10        A08     14
2 A10 A11        A09     14  1
2 A11 A12        A10     14
2 A12 A13        A11     14
2 A13 A14        A12     14
2 A14 A15        A13     14
2 A15 A16        A14     14
2 A16 A17        A15     14
2 A17 A18        A16     14
2 A18 A19        A17     14
2 A19 A20        A18     14
2 A20 A21        A19     14  1
2 A21 A22        A20     14
2 A22 A23        A21     14
2 A23 A24        A22     14
2 A24 A25        A23     14
2 A25 A26        A24     14
2 A26 A27        A25     14
2 A27 A28        A26     14
2 A28 A29        A27     14
2 A29 A30        A28     14
2 A30 A31        A29     14  1
2 A31 A32        A30     14
```

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         1         2         3         4         5         6         7         8
12345678901234567890123456789012345678901234567890123456789012345678901234567890

2 832 833          831    14
2 833 834          832    14
2 834 835          833    14
2 835 836          834    14
2 836 837          835    14
2 837 838          836    14
2 838 839          837    14
2 839 840          838    14
2 840 841          839    14  1
2 841 842          840    14
2 842 843          841    14
2 843 844          842    14
2 844 845          843    14
2 845 846          844    14
2 846 847          845    14
2 847 848          846    14
2 848 849          847    14
2 849 850          848    14
2 850 851          849    14  1
2 851B  8          850    42   4
2 852B  8                 14   4
2 853             8  8    14  24
 R  8 851          851   8  1       10.1       12.0 6.  12.  .6
 R  8 853          851 852  1       15.101 452.37632.  60.  20.
 ENDE
 853       SH. 1      SH. 19652
 853       SH. 2      SH. 29652
 853       SH. 3      SH. 39652
 853       SH. 4      SH. 49652
ENDE
1    8 72. 144.  72.    16.1     10.1                                  .095
1 800 72.  72.  72.    10.100    7.100                                 .0382
1 801144.144.  200.    10.2     10.1                    576.     576.
1 802144.144.  200.    10.3     10.2                    576.     576.
1 803144.144.  200.    10.4     10.3                    576.     576.
1 804144.144.  200.    10.5     10.4                    576.     576.
1 805144.144.  200.    10.6     10.5                    576.     576.
1 806144.144.  200.    10.7     10.6                    576.     576.
1 807144.144.  200.    10.8     10.7                    576.     576.
1 808144.144.  200.    10.9     10.8                    576.     576.
1 809144.144.  200.    11.0     10.9                    576.     576.
1 810144.144.  200.    11.1     11.0                    576.     576.
1 811144.144.  200.    11.2     11.1                    576.     576.
1 812144.144.  200.    11.3     11.2                    576.     576.
1 813144.144.  200.    11.4     11.3                    576.     576.
1 814144.144.  200.    11.5     11.4                    576.     576.
1 815144.144.  200.    11.6     11.5                    576.     576.
1 816144.144.  200.    11.7     11.6                    576.     576.
1 817144.144.  200.    11.8     11.7                    576.     576.
1 818144.144.  200.    11.9     11.8                    576.     576.
1 819144.144.  200.    12.0     11.9                    576.     576.
1 820144.144.  200.    12.1     12.0                    576.     576.
1 821144.144.  200.    12.2     12.1                    576.     576.
1 822144.144.  200.    12.3     12.2                    576.     576.
1 823144.144.  200.    12.4     12.3                    576.     576.
1 824144.144.  200.    12.5     12.4                    576.     576.
1 825144.144.  200.    12.6     12.5                    576.     576.
1 826144.144.  200.    12.7     12.6                    576.     576.
1 827144.144.  200.    12.8     12.7                    576.     576.
1 828144.144.  200.    12.9     12.8                    576.     576.
1 829144.144.  200.    13.0     12.9                    576.     576.
1 830144.144.  200.    13.1     13.0                    576.     576.
1 831144.144.  200.    13.2     13.1                    576.     576.
```

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         1         2         3         4         5         6         7         8
12345678901234567890123456789012345678901234567890123456789012345678901234567890

1 832144.144.  200.   13.3    13.2                                    576.    576.
1 833144.144.  200.   13.4    13.3                                    576.    576.
1 834144.144.  200.   13.5    13.4                                    576.    576.
1 835144.144.  200.   13.6    13.5                                    576.    576.
1 836144.144.  200.   13.7    13.6                                    576.    576.
1 837144.144.  200.   13.8    13.7                                    576.    576.
1 838144.144.  200.   13.9    13.8                                    576.    576.
1 839144.144.  200.   14.0    13.9                                    576.    576.
1 840144.144.  200.   14.1    14.0                                    576.    576.
1 841144.144.  200.   14.2    14.1                                    576.    576.
1 842144.144.  200.   14.3    14.2                                    576.    576.
1 843144.144.  200.   14.4    14.3                                    576.    576.
1 844144.144.  200.   14.5    14.4                                    576.    576.
1 845144.144.  200.   14.6    14.5                                    576.    576.
1 846144.144.  200.   14.7    14.6                                    576.    576.
1 847144.144.  200.   14.8    14.7                                    576.    576.
1 848144.144.  200.   14.9    14.8                                    576.    576.
1 849144.144.  200.   15.0    14.9                                    576.    576.
1 850144.144.  200.   15.1    15.0                                    576.    576.
2 85172.0 144.   2.   15.111  15.1
1 852144. 144.   2.     21.1    21.0
1 853144. 144.   2.   15.112  15.111
 ENDE
STORM & COMBINED SEWER MODEL EVALUATION HYPOTHETICAL PIPE NETWORK
          9652
 .01  NONE     .0         .0        1.0        1.         .0        .0        .0  1
    1          AC   AC     C     5      20.0          .001
 NONE 30.    5.    5.  SH. 1           2.
NONE         2.5   5.0 SH. 2 240.      2.
NONE         5.0   5.0 SH. 3 360.      2.
NONE         5.0   5.0 SH. 4 480.      2.
   -1
2  10R 10                    41   14
2100010 10                   14   14
210011002          9 10      14
210021003          1001      14
210031004          1002      14
210041005          1003      14
210051006          1004      14
210061007          1005      14
210071008          1006      14
210081009          1007      14
210091010          1008      14
210101011          1009      14   1
210111012          1010      14
210121013          1011      14
210131014          1012      14
210141015          1013      14
210151016          1014      14
210161017          1015      14
210171018          1016      14
210181019          1017      14
210191020          1018      14
210201021          1019      14   1
210211022          1020      14
210221023          1021      14
210231024          1022      14
210241025          1023      14
210251026          1024      14
210261027          1025      14
210271028          1026      14
210281029          1027      14
210291030          1028      14
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21030103 1        1029    1A  1
21031103 2        1030    1A
21032103 3        1031    1A
21033103 4        1032    1A
21034103 5        1033    1A
21035103 6        1034    1A
21036103 7        1035    1A
21037103 8        1036    1A
21038103 9        1037    1A
21039104 0        1038    1A
21040104 1        1039    1A  1
21041104 2        1040    1A
21042104 3        1041    1A
21043104 4        1042    1A
21044104 5        1043    1A
21045104 6        1044    1A
21046104 7        1045    1A
21047104 8        1046    1A
21048104 9        1047    1A
21049105 0        1048    1A
21050105 1        1049    1A  1
21051 0 10        1050    A2   4
21052 0 10                1A   4
21053             8 10    1A  24
 R 101001         1000  10  1       11.        12.1 6.  12.  .6
 R 101053         10511052  1       61.001 452.37632.  61.  20.
 ENDE
1053       SH. 1      SH. 19652
1053       SH. 2      SH. 29652
1053       SH. 3      SH. 39652
1053       SH. 4      SH. 49652
ENDE
1  10 72. 144.  72.   17.0    11.0                                        .085
11000 72.  72. 120.   11.000   8.000                                      .0296
11001144.144.  200.   12.     11.                    44.     43.
11002144.144.  200.   13.     12.                    45.     44.
11003144.144.  200.   14.     13.                    46.     45.
11004144.144.  200.   15.     14.                    47.     46.
11005144.144.  200.   16.     15.                    48.     47.
11006144.144.  200.   17.     16.                    49.     48.
11007144.144.  200.   18.     17.                    50.     49.
11008144.144.  200.   19.     18.                    51.     50.
11009144.144.  200.   20.     19.                    52.     51.
11010144.144.  200.   21.     20.                    53.     52.
11011144.144.  200.   22.     21.                    54.     53.
11012144.144.  200.   23.     22.                    55.     54.
11013144.144.  200.   24.     23.                    56.     55.
11014144.144.  200.   25.     24.                    57.     56.
11015144.144.  200.   26.     25.                    58.     57.
11016144.144.  200.   27.     26.                    59.     58.
11017144.144.  200.   28.     27.                    60.     59.
11018144.144.  200.   29.     28.                    61.     60.
11019144.144.  200.   30.     29.                    62.     61.
11020144.144.  200.   31.     30.                    63.     62.
11021144.144.  200.   32.     31.                    64.     63.
11022144.144.  200.   33.     32.                    65.     64.
11023144.144.  200.   34.     33.                    66.     65.
11024144.144.  200.   35.     34.                    67.     66.
11025144.144.  200.   36.     35.                    68.     67.
11026144.144.  200.   37.     36.                    69.     68.
11027144.144.  200.   38.     37.                    70.     69.
11028144.144.  200.   39.     38.                    71.     70.
11029144.144.  200.   40.     39.                    72.     71.
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         1         2         3         4         5         6         7         8
12345678901234567890123456789012345678901234567890123456789012345678901234567890

11030144.144.  200.   41.    40.                                    73.    72.
11031144.144.  200.   42.    41.                                    74.    73.
11032144.144.  200.   43.    42.                                    75.    74.
11033144.144.  200.   44.    43.                                    76.    75.
11034144.144.  200.   45.    44.                                    77.    76.
11035144.144.  200.   46.    45.                                    78.    77.
11036144.144.  200.   47.    46.                                    79.    78.
11037144.144.  200.   48.    47.                                    80.     79.
11038144.144.  200.   49.    48.                                    81.    80.
11039144.144.  200.   50.    49.                                    82.    81.
11040144.144.  200.   51.    50.                                    83.    82.
11041144.144.  200.   52.    51.                                    84.    83.
11042144.144.  200.   53.    52.                                    85.    84.
11043144.144.  200.   54.    53.                                    86.    85.
11044144.144.  200.   55.    54.                                    87.    86.
11045144.144.  200.   56.    55.                                    88.    87.
11046144.144.  200.   57.    56.                                    89.    88.
11047144.144.  200.   58.    57.                                    90.    89.
11048144.144.  200.   59.    58.                                    91.    90.
11049144.144.  200.   60.    59.                                    92.    91.
11050144.144.  200.   61.    60.                                    93.    92.
1105172.0 144. .2 00  61.001  61.
11052144. 144.   2.     62.0  61.99
11053144. 144.   0.2  61.002  61.001
 ENDF
STORM & COMBINED SEWER MODEL EVALUATION HYPOTHETICAL PIPE NETWORK
          9652
 .01  NONE     .3        .0       1.        1.        .1        .1        .0  1
   1          80    40     6     5     20.0       .001     0      0
 NONE 30.     5.    5.  SH. 1           5.
 NONE         2.5   5.0 SH. 2 240.      5.
 NONE         5.    5.  SH. 3 360.      5.
 NONE         5.    5.  SH. 4 480.      5.
   -1
2  120 12                     41  1
212100R 12                    14  1
2120112C2          R 12       14
212021203          1201       14
212031204          1202       14
212041205          1203       14
212051206          1204       14
212061207          1205       14
212071208          1206       14
212081209          1207       14
212091210          1208       14
212101211          1209       14  1
212111212          1210       14
212121213          1211       14
212131214          1212       14
212141215          1213       14
212151216          1214       14
212161217          1215       14
212171218          1216       14
212181219          1217       14
212191220          1218       14
212201221          1219       14  1
212211222          1220       14
212221223          1221       14
212231224          1222       14
212241225          1223       14
212251226          1224       14
212261227          1225       14
212271228          1226       14
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          1         2         3         4         5         6         7         8
12345A789C123456789C123456789C123456789C123456789C123456789C123456789C123456789C
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         1         2         3         4
1234567890123456789012345678901234567890123456789012345678901234567890123456789

11228144.144.  200.  300.  290.                    332.    322.
11229144.144.  210.  310.  300.                    342.    332.
11230144.144.  200.  320.  310.                    352.    342.
11231144.144.  210.  330.  320.                    362.    352.
11232144.144.  200.  340.  330.                    372.    362.
11233144.144.  210.  350.  340.                    382.    372.
11234144.144.  200.  360.  350.                    392.    382.
11235144.144.  210.  370.  360.                    402.    392.
11236144.144.  200.  380.  370.                    412.    402.
11237144.144.  210.  390.  380.                    422.    412.
11238144.144.  200.  400.  390.                    432.    422.
11239144.144.  210.  410.  400.                    442.    432.
11240144.144.  200.  420.  410.                    452.    442.
11241144.144.  210.  430.  420.                    462.    452.
11242144.144.  200.  440.  430.                    472.    462.
11243144.144.  210.  450.  440.                    482.    472.
11244144.144.  200.  460.  450.                    492.    482.
11245144.144.  210.  470.  460.                    502.    492.
11246144.144.  200.  480.  470.                    512.    502.
11247144.144.  210.  490.  480.                    522.    512.
11248144.144.  200.  500.  490.                    532.    522.
11249144.144.  210.  510.  500.                    542.    532.
11250144. 144. 200.  520.000 510.000               552.    542.
11251172.0 144.   .2  520.11  520.
11252144. 144.   2.     521.9   521.8
11253144. 144.     .2 520.02  520.11
 ENDE
```

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STORM + COMBINED SEWER MODEL EVALUATION

HYPOTHETICAL PIPE NETWORK

CALCULATION NO. [illegible]

[illegible]

DORSCH CONSULT HYDROGRAPH-VOLUME METHOD

SELECTED OUTPUT OF HYPOTHETICAL PIPE SIMULATION

COMPUTER SEWER SYSTEM SIMULATION

DORSCH CONSULT LTD.

CONSULTING ENGINEERS

TORONTO

ONTARIO

STORM + COMBINED SEWER MODEL EVALUATION

HYPOTHETICAL PIPE NETWORK

CALCULATION NO. 7652

03.07.1974

NUMBER OF SEWER SECTIONS		55
NUMBER OF OVERFLOW STRUCTURES		2
NUMBER OF RETENTION STRUCTURES		0
TOTAL LENGTH OF SEWER SYSTEM	(MILES)	1.96
TOTAL SEWER STORAGE VOLUME	(1,000 CU.FT.)	31.85
TOTAL RETENTION STRUCTURE VOLUME	(1,000 CU.FT.)	.00
MANNINGS N VARIES BETWEEN	.0100 AND	.0250
MEDIUM IMPERVIOUSNESS DEGREE		.300
NUMBER OF RESIDENTS		0
TOTAL DRAINAGE AREA	(ACRES)	.00
PER CAPITA SEWAGE FLOW	(G.P.C.D.)	.0
GROUNDWATER INFILTRATION	(GALL/INCH-TN DIA)	.0
TOTAL DRY WEATHER FLOW	(CU.FT./SEC.)	.00
TOTAL INDUSTRIAL WASTE WATER FLOW	(CU.FT./SEC.)	.00
TOTAL GROUNDWATER INFILTRATION	(CU.FT./SEC.)	.00
PEAK D.W.FLOW / AVERAGE D.W.FLOW		0.
NIGHT D.W.FLOW / AVERAGE D.W.FLOW		0.

		1.)	2.)	3.)
RAIN DESIGNATION		SH. 2	SH. 3	SH. 4
CALCULATION DURATION	(MIN.)	240.0	360.0	480.0
TIME INCREMENT	(MIN.)	2.5	5.0	5.0
RECURRENCE FREQUENCY	(PER YEAR)	NONE	NONE	NONE

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STORM + COMBINED SEWER MODEL EVALUATION                                                                                  CALCULATION NO. 9652
HYPOTHETICAL PIPE NETWORK                                                                                                      03.07.1974

  4  HALF CIRCULAR      24.0/ 12.0    INFLOW R  4                 OUTFLOW                  H.NO.                                  IMAGIN. SEW.    4

  *  YU   12.00 YL   11.00 QF    4.70 AT     .00 RES     .0 QDLM   .00 VNORM   .00  DUC    1.85 DLC     .00 QLM    9.3 CAP    -3.6
     SU     .00 SL     .00 AF    1.57 GAMMA .000 TW     .00 HDLM   .00              DUS     .00 DLS     .00 VLM    5.28 QLM/QF 1.76
     L    12.0 DY    1.00 VF    2.99 SCAR  NONE QD     .00 VDLM   .00 HNIGHT  .00  HJM    2.85 HLM    1.00 RAIN SH. 2
     S    8.333 N    .0650                                  DWR    .00 VNIGHT  .00  YUM   14.85 YLM   12.00

     RAIN                    QLM       VLM       DQMAX      HUM       DLC       DLS                    HLM       DLC       DLS

    SH. 2                    8.3       5.28        .00      2.85      1.85       .00                   1.00       .00       .00
    SH. 3                    8.6       5.49        .00      3.39      2.39       .00                   1.00       .00       .00
    SH. 4                    9.3       5.92        .00      3.89      2.89       .00                   1.00       .00       .00

 400  CIRCULAR           12.0/ 12.0    INFLOW R  4                 OUTFLOW                  H.NO.                                  IMAGIN. SEW.  400

  *  YU   11.00 YL   10.50 QF    3.33 AT     .00 RES     .0 QDLM  1.87 VNORM  4.37  DUC    1.76 DLC     .00 QLM    7.1 CAP    -3.7
     SU     .00 SL     .00 AF     .79 GAMMA .000 TW     .00 HDLM   .54              DUS     .00 DLS     .00 VLM    9.01 QLM/QF 2.12
     L    12.0 DY     .50 VF    4.24 SCAR  NONE QD     .00 VDLM  4.37 HNIGHT  .54  HJM    2.76 HLM    1.00 RAIN SH. 2
     S    4.167 N    .0284                                  DWR    .00 VNIGHT 4.37  YUM   13.76 YLM   11.50

     RAIN                    QLM       VLM       DQMAX      HUM       DLC       DLS                    HLM       DLC       DLS

    SH. 2                    7.1       9.01        .00      2.76      1.76       .00                   1.00       .00       .00
    SH. 3                    7.6       9.68        .00      3.11      2.11       .00                   1.00       .00       .00
    SH. 4                    8.0      10.25        .00      3.42      2.42       .00                   1.00       .00       .00

 401  CIRCULAR           24.0/ 24.0    INFLOW  402                 OUTFLOW  R  4          H.NO.                                          401

     YU   12.00 YL   11.00 QF   20.79 AT     .00 RES     .0 QDLM  1.87 VNORM  4.10  DUC    1.51 DLC    1.97 QLM   15.3 CAP     5.5
     SU  576.00 SL  576.00 AF    3.14 GAMMA .000 TW     .00 HDLM   .54              DUS -560.49 DLS -561.03 VLM    4.87 QLM/QF  .74
     L    200.0 DY    1.00 VF    6.62 SCAR  NONE QD     .00 VDLM  2.77 HNIGHT  .41  HJM    3.51 HLM    3.97 RAIN SH. 2
     S     .500 N    .0100                                  DWR    .13 VNIGHT 4.10  YUM   15.51 YLM   14.97

     RAIN                    QLM       VLM       DQMAX      HUM       DLC       DLS                    HLM       DLC       DLS

    SH. 2                   15.3       4.87        .00      3.51      1.51   -560.49                   3.97      1.97   -561.03
    SH. 3                   16.2       5.17        .00      4.13      2.13   -559.87                   4.53      2.53   -560.47
    SH. 4                   17.3       5.52        .00      4.71      2.71   -559.29                   5.02      3.02   -559.98

 402  CIRCULAR           24.0/ 24.0    INFLOW  403                 OUTFLOW   401          H.NO.                                          402

     YU   13.00 YL   12.00 QF   20.79 AT     .00 RES     .0 QDLM  1.87 VNORM   .00  DUC    1.03 DLC    1.51 QLM   15.3 CAP     5.5
     SU  576.00 SL  576.00 AF    3.14 GAMMA .000 TW     .00 HDLM   .41              DUS -559.97 DLS -560.49 VLM    5.64 QLM/QF  .74
     L    200.0 DY    1.00 VF    6.62 SCAR  NONE QD     .00 VDLM  4.10 HNIGHT  .41  HJM    3.03 HLM    3.51 RAIN SH. 2
     S     .500 N    .0100                                  DWR    .00 VNIGHT 4.10  YUM   16.03 YLM   15.51

     RAIN                    QLM       VLM       DQMAX      HUM       DLC       DLS                    HLM       DLC       DLS

    SH. 2                   15.3       5.64        .00      3.03      1.03   -559.97                   3.51      1.51   -560.49
    SH. 3                   16.2       5.70        .00      3.74      1.74   -559.26                   4.13      2.13   -559.87
    SH. 4                   17.3       5.64        .00      4.42      2.42   -558.58                   4.71      2.71   -559.29
```

433	CIRCULAR		24.00	24.0	INFLOW	434			OUTFLOW	432		A.NO.									433
	YU	18.00	YL	13.00	QF	20.79	AT	.00	RES	.0	QDLM	1.87	VNORM	.00	DUC	.55	DLC	1.33	QLM	15.3	CAP	5.5
	SU	576.00	SL	576.00	AF	3.14	GAMMA	.000	TW	.00	HDLM	.81			DUS	-559.45	DLS	-559.97	VLM	6.77	QLM/QF	.74
	L	200.0	DY	1.33	VF	6.62	SCAR	NONE	QO	.00	VDLM	4.13	HNIGHT	.81	HJM	2.55	HLM	3.33	RAIN	SH. 2		
	S	.500	N	.0100							DWR	.00	VAIGHT	4.10	YUM	18.55	YLP	18.03				

RAIN	QLM	VLM	QOMAX	HUM	DUC	DUS	HLM	DLC	DLS
SH. 2	15.3	6.77	.00	2.55	.55	-559.45	3.33	1.33	-559.97
SH. 3	16.2	6.68	.00	3.34	1.34	-558.66	3.74	1.74	-559.26
SH. 4	17.3	6.64	.00	4.12	2.12	-557.88	4.42	2.42	-559.58

434	CIRCULAR		24.00	24.0	INFLOW	435			OUTFLOW	433		A.NO.									434
	YU	19.00	YL	14.00	QF	20.79	AT	.00	RES	.0	QDLM	1.87	VNORM	.00	DUC	.07	DLC	.55	QLM	15.3	CAP	5.5
	SU	576.00	SL	576.00	AF	3.14	GAMMA	.000	TW	.00	HDLM	.81			DUS	-558.93	DLS	-559.45	VLM	6.81	QLM/QF	.74
	L	200.0	DY	1.33	VF	6.62	SCAR	NONE	QO	.00	VDLM	4.13	HNIGHT	.81	HJM	2.37	HLM	2.55	RAIN	SH. 2		
	S	.500	N	.0100							DWR	.00	VAIGHT	4.10	YUM	17.07	YLP	16.55				

RAIN	QLM	VLM	QOMAX	HUM	DLC	DLS	HLM	DLC	DLS
SH. 2	15.3	6.81	.00	2.37	.37	-558.93	2.55	.55	-559.45
SH. 3	16.2	6.91	.00	2.97	.97	-558.03	3.34	1.34	-558.66
SH. 4	17.3	6.86	.00	3.81	1.81	-557.19	4.12	2.12	-557.88

435	CIRCULAR		24.00	24.0	INFLOW	436			OUTFLOW	434		A.NO.									435
	YU	16.00	YL	15.00	QF	20.79	AT	.00	RES	.0	QDLM	1.87	VNORM	.00	DUC	-.38	DLC	.07	QLM	15.4	CAP	5.4
	SU	576.00	SL	576.00	AF	3.14	GAMMA	.000	TW	.00	HDLM	.81			DUS	-558.38	DLS	-558.93	VLM	7.05	QLM/QF	.74
	L	200.0	DY	1.33	VF	6.62	SCAR	NONE	QO	.00	VDLM	4.13	HNIGHT	.81	HJM	1.62	HLM	2.37	RAIN	SH. 2		
	S	.500	N	.0100							DWR	.00	VAIGHT	4.10	YUM	17.62	YLP	17.07				

RAIN	QLM	VLM	QOMAX	HUM	DLC	DLS	HLM	DLC	DLS
SH. 2	15.4	7.05	.00	1.62	-.38	-558.38	2.37	.37	-558.93
SH. 3	16.2	7.10	.00	2.58	.58	-557.42	2.97	.97	-558.03
SH. 4	17.3	7.05	.00	3.52	1.52	-556.48	3.81	1.81	-557.19

436	CIRCULAR		24.00	24.0	INFLOW	437			OUTFLOW	435		A.NO.									436
	YU	17.00	YL	16.00	QF	20.79	AT	.00	RES	.0	QDLM	1.87	VNORM	.00	DUC	-.68	DLC	-.38	QLM	16.0	CAP	4.8
	SU	576.00	SL	576.00	AF	3.14	GAMMA	.000	TW	.00	HDLM	.81			DUS	-557.68	DLS	-558.38	VLM	7.18	QLM/QF	.77
	L	200.0	DY	1.33	VF	6.62	SCAR	NONE	QO	.00	VDLM	4.13	HNIGHT	.81	HJM	1.32	HLM	1.62	RAIN	SH. 2		
	S	.500	N	.0100							DWR	.00	VAIGHT	4.10	YUM	18.32	YLP	17.62				

RAIN	QLM	VLM	QOMAX	HUM	DLC	DLS	HLM	DLC	DLS
SH. 2	16.0	7.18	.00	1.32	-.68	-557.68	1.62	-.38	-558.38
SH. 3	16.2	7.10	.00	2.18	.18	-556.82	2.58	.58	-557.42
SH. 4	17.3	7.10	.00	3.22	1.22	-555.78	3.52	1.52	-556.48

STORM + COMBINED SEWER POLL EVALUATION
HYPOTHETICAL PIPE NETWORK

CALCULATION NO. 9652
13.07.1974

417 CIRCULAR 24.07 24.1 INFLOW 416 OUTFLOW 418 M.NO. 417

YU	18.00	YL	17.33	QF	23.79	AT	.00	RES	.0	QDLM	1.87	VNORM	.00	DUC	-.68	DLC	-.68	DLM	16.1	CAP	4.7
SU	576.00	SL	576.00	AF	3.14	GAMMA	.000	TW	.00	HDLM	.91			DUS	-556.68	DLS	-557.68	VLM	7.31	QLM/QF	.77
L	233.0	DY	1.33	VF	6.62	SCAR	NONE	QD	.00	VDLM	8.13	HNIGHT	.91	HJM	1.32	HLM	1.32	RAIN	SH. 2		
S	.500	N	.0100							DWR	.00	VWIGHT	8.10	YUM	19.32	YLM	18.32				

RAIN	QLM	VLM	QQMAX	HUM	DUC	DUS	HLM	DLC	DLS
SH. 2	16.1	7.31	.33	1.32	-.68	-556.68	1.32	-.69	-557.68
SH. 3	16.9	7.26	.00	1.79	-.21	-556.21	2.18	.18	-556.82
SH. 4	17.3	7.22	.33	2.91	.91	-555.09	3.22	1.22	-555.78

418 CIRCULAR 24.07 24.1 INFLOW 419 OUTFLOW 417 M.NO. 418

YU	19.00	YL	18.00	QF	20.79	AT	.00	RES	.0	QDLM	1.87	VNORM	.00	DUC	-.68	DLC	-.68	DLM	16.1	CAP	4.7
SU	576.00	SL	576.00	AF	3.14	GAMMA	.000	TW	.00	HDLM	.91			DUS	-555.68	DLS	-556.68	VLM	7.31	QLM/QF	.78
L	233.0	DY	1.33	VF	6.62	SCAR	NONE	QD	.33	VDLM	8.13	HNIGHT	.91	HJM	1.32	HLM	1.32	RAIN	SH. 2		
S	.500	N	.0100							DWR	.00	VWIGHT	8.10	YUM	20.32	YLM	19.32				

RAIN	QLM	VLM	QQMAX	HUM	DUC	DUS	HLM	DLC	DLS
SH. 2	16.1	7.31	.33	1.32	-.68	-555.68	1.32	-.69	-556.68
SH. 3	16.7	7.32	.00	1.45	-.55	-555.55	1.79	-.21	-556.21
SH. 4	17.3	7.29	.33	2.62	.62	-554.38	2.91	.91	-555.19

419 CIRCULAR 24.07 24.3 INFLOW 410 OUTFLOW 418 M.NO. 419

YU	20.00	YL	19.00	QF	20.79	AT	.00	RES	.0	QDLM	1.87	VNORM	.00	DUC	-.67	DLC	-.68	DLM	16.2	CAP	4.6
SU	576.00	SL	576.00	AF	3.14	GAMMA	.000	TW	.00	HDLM	.91			DUS	-554.67	DLS	-555.68	VLM	7.32	QLM/QF	.78
L	233.0	DY	1.33	VF	6.62	SCAR	NONE	QD	.33	VDLM	8.13	HNIGHT	.91	HJM	1.33	HLM	1.32	RAIN	SH. 2		
S	.500	N	.0100							DWR	.00	VWIGHT	8.10	YUM	21.33	YLM	20.32				

RAIN	QLM	VLM	QQMAX	HUM	DUC	DUS	HLM	DLC	DLS
SH. 2	16.2	7.32	.33	1.33	-.67	-554.67	1.32	-.68	-555.68
SH. 3	16.9	7.34	.00	1.37	-.63	-554.63	1.45	-.55	-555.55
SH. 4	17.3	7.35	.33	2.31	.31	-553.69	2.62	.62	-554.38

410 CIRCULAR 24.07 24.3 INFLOW 411 OUTFLOW 419 M.NO. 410

* YU	21.00	YL	20.00	QF	20.79	AT	.00	RES	.0	QDLM	1.87	VNORM	.00	DUC	-.67	DLC	-.67	DLM	16.2	CAP	4.6
SU	576.00	SL	576.00	AF	3.14	GAMMA	.000	TW	.00	HDLM	.91			DUS	-553.67	DLS	-554.67	VLM	7.32	QLM/QF	.78
L	233.0	DY	1.33	VF	6.62	SCAR	NONE	QD	.33	VDLM	8.13	HNIGHT	.91	HJM	1.33	HLM	1.33	RAIN	SH. 2		
S	.500	N	.0100							DWR	.00	VWIGHT	8.10	YUM	22.33	YLM	21.33				

RAIN	QLM	VLM	QQMAX	HUM	DUC	DUS	HLM	DLC	DLS
SH. 2	16.2	7.32	.33	1.33	-.67	-553.67	1.33	-.67	-554.67
SH. 3	16.9	7.38	.00	1.37	-.63	-553.63	1.37	-.63	-554.63
SH. 4	17.4	7.34	.33	2.31	.31	-552.99	2.31	.31	-553.69

STORM + COMBINED SEWER POOEL EVALUATION
HYPOTHETICAL PIPE NETWORK

CALCULATION NO. 9652
03.07.1974

411 CIRCULAR 24.00/ 24.0 INFLOW 412 OUTFLOW 413 M.NO. 411

YU	22.33	YL	21.33	QF	21.79	AT	.00	RFS	.0	QDLM	1.87	VNORM	.11	DUC	-.67	DLC	-.67	GLM	16.2	CAP	4.6
SU	576.00	SL	576.00	AF	3.14	GAMMA	.000	TW	.00	HDLM	.41			DUS	-552.67	DLS	-553.67	VLM	7.32	GLM/CF	.78
L	200.0	DY	1.00	VF	6.62	SCAR	NONE	QD	.1.	VDLM	4.13	HNIGHT	.41	HJM	1.33	HLM	1.33	RAIN	SH. 2		
S	.500	N	.0100							DWP	.00	WAIGHT	4.10	YUM	23.33	YLP	22.33				

RAIN	QLM	VLM	QQMAX	HUM	DUC	DUS	HLM	DLC	DLS
SH. 2	16.2	7.32	.00	1.33	-.67	-552.67	1.33	-.67	-553.67
SH. 3	16.9	7.38	.00	1.37	-.63	-552.63	1.37	-.63	-553.63
SH. 4	17.7	7.41	.00	1.71	-.29	-552.29	2.31	.31	-552.99

412 CIRCULAR 24.00/ 24.0 INFLOW 413 OUTFLOW 411 M.NO. 412

YU	23.00	YL	22.00	QF	21.79	AT	.00	RFS	.0	QDLM	1.87	VNORM	.00	DUC	-.67	DLC	-.67	GLM	16.2	CAP	4.6
SU	576.00	SL	576.00	AF	3.14	GAMMA	.000	TW	.00	HDLM	.41			DUS	-551.67	DLS	-552.67	VLM	7.32	GLM/CF	.78
L	200.0	DY	1.00	VF	6.62	SCAR	NONE	QD	.00	VDLM	4.13	HNIGHT	.41	HJM	1.33	HLM	1.33	RAIN	SH. 2		
S	.500	N	.0100							DWP	.00	WAIGHT	4.10	YUM	24.33	YLP	23.33				

RAIN	QLM	VLM	QQMAX	HUM	DUC	DUS	HLM	DLC	DLS
SH. 2	16.2	7.32	.00	1.33	-.67	-551.67	1.33	-.67	-552.67
SH. 3	16.9	7.38	.00	1.37	-.63	-551.63	1.37	-.63	-552.63
SH. 4	17.8	7.41	.00	1.47	-.53	-551.53	1.71	-.29	-552.29

413 CIRCULAR 24.00/ 24.0 INFLOW 414 OUTFLOW 412 M.NO. 413

YU	24.00	YL	23.00	QF	21.79	AT	.00	RFS	.0	QDLM	1.87	VNORM	.00	DUC	-.67	DLC	-.67	GLM	16.2	CAP	4.6
SU	576.00	SL	576.00	AF	3.14	GAMMA	.000	TW	.00	HDLM	.41			DUS	-550.67	DLS	-551.67	VLM	7.32	GLM/CF	.78
L	200.0	DY	1.00	VF	6.62	SCAR	NONE	QD	.00	VDLM	4.13	HNIGHT	.41	HJM	1.33	HLM	1.33	RAIN	SH. 2		
S	.500	N	.0100							DWP	.00	WAIGHT	4.10	YUM	25.33	YLP	24.33				

RAIN	QLM	VLM	QQMAX	HUM	DUC	DUS	HLM	DLC	DLS
SH. 2	16.2	7.32	.00	1.33	-.67	-550.67	1.33	-.67	-551.67
SH. 3	16.9	7.38	.00	1.37	-.63	-550.63	1.37	-.63	-551.63
SH. 4	17.8	7.44	.00	1.43	-.57	-550.57	1.47	-.53	-551.53

414 CIRCULAR 24.00/ 24.0 INFLOW 415 OUTFLOW 413 M.NO. 414

YU	25.00	YL	24.00	QF	21.79	AT	.00	RFS	.0	QDLM	1.87	VNORM	.00	DUC	-.67	DLC	-.67	GLM	16.2	CAP	4.6
SU	576.00	SL	576.00	AF	3.14	GAMMA	.000	TW	.00	HDLM	.41			DUS	-549.67	DLS	-550.67	VLM	7.32	GLM/CF	.78
L	200.0	DY	1.00	VF	6.62	SCAR	NONE	QD	.00	VDLM	4.13	HNIGHT	.41	HJM	1.33	HLM	1.33	RAIN	SH. 2		
S	.500	N	.0100							DWP	.00	WAIGHT	4.10	YUM	26.33	YLP	25.33				

RAIN	QLM	VLM	QQMAX	HUM	DUC	DUS	HLM	DLC	DLS
SH. 2	16.2	7.32	.00	1.33	-.67	-549.67	1.33	-.67	-550.67
SH. 3	16.9	7.38	.00	1.37	-.63	-549.63	1.37	-.63	-550.63
SH. 4	17.8	7.44	.00	1.43	-.57	-549.57	1.43	-.57	-550.57

STORM + COMBINED SEWER PROFIL EVALUATION
HYPOTHETICAL PIPE NETWORK

CALCULATION NO. 9052
13.37.1974

R15 CIRCULAR 24.37 24.3 INFLOW R16 OUTFLOW R19 R.NO. R15

YU	24.33	YL	25.33	QF	21.79	AT	.33	RFS	.3	QDLM	1.87	VNORM	.11	DJC	-.67	DLC	-.67	QLM	16.2	CAP	9.6
SU	576.CC	SL	576.CC	AF	3.14	GAMMA	.CCC	IW	.CC	HDLM	.41			DJS	-548.67	DLS	-549.67	VLM	7.32	QLM/QF	.78
L	200.0	DY	1.33	VF	6.62	SCAR	NONE	QD	.33	VDLM	9.13	HNIGHT	.41	HJM	1.33	HLM	1.33	RAIN	SH. 2		
S	.5CC	N	.C1CC							DWR	.CC	VNIGHT	9.1C	YJM	27.33	YLM	26.33				

RAIN	QLM	VLM	DQMAX	HJM	DJC	DJS	HLM	DLC	DLS
SH. 2	16.2	7.32	.33	1.33	-.67	-548.67	1.33	-.67	-549.67
SH. 3	16.9	7.38	.CC	1.37	-.63	-548.63	1.37	-.63	-549.63
SH. 9	17.8	7.49	.33	1.43	-.57	-548.57	1.43	-.57	-549.57

R16 CIRCULAR 24.37 24.3 INFLOW R17 OUTFLOW R15 R.NO. R16

YU	27.CC	YL	26.CC	QF	2C.79	AT	.CC	RFS	.C	QDLM	1.87	VNORM	.CC	DJC	-.67	DLC	-.67	QLM	16.2	CAP	9.6
SU	576.CC	SL	576.CC	AF	3.14	GAMMA	.CCC	IW	.CC	HDLM	.41			DJS	-547.67	DLS	-548.67	VLM	7.31	QLM/QF	.78
L	200.0	DY	1.33	VF	6.62	SCAR	NONE	QD	.33	VDLM	9.13	HNIGHT	.41	HJM	1.33	HLM	1.33	RAIN	SH. 2		
S	.5CC	N	.C1CC							DWR	.CC	VNIGHT	9.1C	YJM	28.33	YLM	27.33				

RAIN	QLM	VLM	DQMAX	HJM	DJC	DJS	HLM	DLC	DLS
SH. 2	16.2	7.31	.33	1.33	-.67	-547.67	1.33	-.67	-548.67
SH. 3	16.9	7.38	.CC	1.37	-.63	-547.63	1.37	-.63	-548.63
SH. 9	17.9	7.49	.33	1.43	-.57	-547.57	1.43	-.57	-548.57

R17 CIRCULAR 24.37 24.3 INFLOW R18 OUTFLOW R16 R.NO. R17

YU	28.CC	YL	27.CC	QF	2C.79	AT	.CC	RFS	.C	QDLM	1.87	VNORM	.CC	DJC	-.66	DLC	-.67	QLM	16.2	CAP	9.6
SU	576.CC	SL	576.CC	AF	3.14	GAMMA	.CCC	IW	.CC	HDLM	.41			DJS	-546.66	DLS	-547.67	VLM	7.31	QLM/QF	.78
L	200.0	DY	1.33	VF	6.62	SCAR	NONE	QD	.33	VDLM	9.13	HNIGHT	.41	HJM	1.34	HLM	1.33	RAIN	SH. 2		
S	.5CC	N	.C1CC							DWR	.CC	VNIGHT	9.1C	YJM	29.34	YLM	28.33				

RAIN	QLM	VLM	DQMAX	HJM	DJC	DJS	HLM	DLC	DLS
SH. 2	16.2	7.31	.CC	1.34	-.66	-546.66	1.33	-.67	-547.67
SH. 3	17.3	7.38	.33	1.38	-.62	-546.62	1.37	-.63	-547.63
SH. 9	17.9	7.45	.CC	1.43	-.57	-546.57	1.43	-.57	-547.57

R18 CIRCULAR 24.CC 24.C INFLOW R19 OUTFLOW R17 R.NO. R18

YU	29.33	YL	28.33	QF	23.79	AT	.33	RFS	.3	QDLM	1.87	VNORM	.11	DJC	-.66	DLC	-.66	QLM	16.3	CAP	9.5
SU	576.3C	SL	576.33	AF	3.14	GAMMA	.CCC	IW	.CC	HDLM	.41			DJS	-545.66	DLS	-546.66	VLM	7.33	QLM/QF	.78
L	2CC.C	DY	1.CC	VF	6.62	SCAR	NONE	QD	.CC	VDLM	9.1C	HNIGHT	.41	HJM	1.34	HLM	1.34	RAIN	SH. 2		
S	.533	N	.3133							DWR	.33	VNIGHT	9.1J	YJM	33.34	YLM	29.34				

RAIN	QLM	VLM	DQMAX	HJM	DJC	DJS	HLM	DLC	DLS
SH. 2	16.3	7.3C	.CC	1.34	-.66	-545.66	1.34	-.66	-546.66
SH. 3	17.3	7.38	.33	1.38	-.62	-545.62	1.38	-.62	-546.62
SH. 9	17.9	7.45	.CC	1.43	-.57	-545.57	1.43	-.57	-546.57

STORM + COMBINED SEWER MODEL EVALUATION
HYPOTHETICAL PIPE NETWORK

CALCULATION NO. 9652
03.07.1974

419 CIRCULAR 24.C/ 24.C INFLOW 420 OUTFLOW 418 P.NO. 419

YU	3C.CC	YL	29.CC	QF	2C.79	AT	.CC	RFS	.C	QOLM	1.87	VNORM	.CC	DUC	-.66	DLC	-.66	CLM	16.3	CAP	4.5
SU	576.JJ	SL	576.33	AF	3.14	GAMMA	.JJJ	TW	.JJ	HOLM	.41			DUS	-544.66	DLS	-545.66	VLM	7.33	QLM/QF	.78
L	2CC.C	DY	1.CC	VF	6.62	SCAR	NONE	CD	.CC	VOLM	4.1C	HAIGHT	.41	HUM	1.34	HLM	1.34	RAIN	SH. 2		
S	.5JJ	N	.3133							DWR	.JJ	VNIGHT	4.1J	YJM	31.34	YLM	33.34				

RAIN	QLM	VLM	QOMAX	HUM	DUC	DUS	HLM	DLC	DLS
SH. 2	16.3	7.3C	.CC	1.34	-.66	-544.66	1.34	-.66	-545.66
SH. 3	17.1	7.3R	.JJ	1.3R	-.62	-544.62	1.3R	-.62	-545.62
SH. 4	17.9	7.45	.CC	1.43	-.57	-544.57	1.43	-.57	-545.57

420 CIRCULAR 24.C/ 24.C INFLOW 421 OUTFLOW 419 P.NO. 420

YU	31.1J	YL	33.33	QF	23.79	AT	.JJ	RFS	.J	QOLM	1.87	VNORM	.JJ	DUC	-.66	DLC	-.66	CLM	16.3	CAP	4.5
SU	576.JJ	SL	576.33	AF	3.14	GAMMA	.JJJ	TW	.JJ	HOLM	.41			DUS	-543.66	DLS	-544.66	VLM	7.33	QLM/QF	.78
L	2CC.C	DY	1.CC	VF	6.62	SCAR	NONE	CD	.CC	VOLM	4.1C	HAIGHT	.41	HUM	1.34	HLM	1.34	RAIN	SH. 2		
S	.5JJ	N	.3133							DWR	.JJ	VNIGHT	4.1J	YJM	32.34	YLM	31.34				

RAIN	QLM	VLM	QOMAX	HUM	DUC	DUS	HLM	DLC	DLS
SH. 2	16.3	7.3C	.CC	1.34	-.66	-543.66	1.34	-.66	-544.66
SH. 3	17.1	7.39	.JJ	1.3R	-.62	-543.62	1.3R	-.62	-544.62
SH. 4	17.9	7.45	.CC	1.43	-.57	-543.57	1.43	-.57	-544.57

421 CIRCULAR 24.C/ 24.C INFLOW 422 OUTFLOW 420 P.NO. 421

YU	32.JJ	YL	31.33	QF	23.79	AT	.JJ	RES	.J	QOLM	1.87	VNORM	.JJ	DUC	-.66	DLC	-.66	CLM	16.3	CAP	4.5
SU	576.JJ	SL	576.33	AF	3.14	GAMMA	.JJJ	TW	.JJ	HOLM	.41			DUS	-542.66	DLS	-543.66	VLM	7.33	QLM/QF	.79
L	2CC.C	DY	1.CC	VF	6.62	SCAR	NONE	CD	.CC	VOLM	4.1C	HAIGHT	.41	HUM	1.34	HLM	1.34	RAIN	SH. 2		
S	.5JJ	N	.3133							DWR	.JJ	VNIGHT	4.1J	YJM	33.34	YLM	32.34				

RAIN	QLM	VLM	QOMAX	HUM	DUC	DUS	HLM	DLC	DLS
SH. 2	16.3	7.3C	.CC	1.34	-.66	-542.66	1.34	-.66	-543.66
SH. 3	17.1	7.39	.JJ	1.39	-.61	-542.61	1.3R	-.62	-543.62
SH. 4	18.C	7.45	.CC	1.43	-.57	-542.57	1.43	-.57	-543.57

422 CIRCULAR 24.C/ 24.C INFLOW 423 OUTFLOW 421 P.NO. 422

YU	33.3J	YL	32.33	QF	23.79	AT	.JJ	RES	.J	QOLM	1.87	VNORM	.JJ	DUC	-.65	DLC	-.66	CLM	15.9	CAP	4.4
SU	576.JJ	SL	576.33	AF	3.14	GAMMA	.JJJ	TW	.JJ	HOLM	.41			DUS	-541.65	DLS	-542.66	VLM	7.33	QLM/QF	.79
L	2CC.C	DY	1.CC	VF	6.62	SCAR	NONE	CD	.CC	VOLM	4.1C	HAIGHT	.41	HUM	1.34	HLM	1.34	RAIN	SH. 2		
S	.5JJ	N	.3133							DWR	.JJ	VNIGHT	4.1J	YJM	34.35	YLM	33.34				

RAIN	QLM	VLM	QOMAX	HUM	DUC	DUS	HLM	DLC	DLS
SH. 2	16.4	7.3C	.CC	1.35	-.65	-541.65	1.34	-.66	-542.66
SH. 3	17.2	7.39	.JJ	1.39	-.61	-541.61	1.39	-.61	-542.61
SH. 4	18.C	7.45	.CC	1.43	-.57	-541.57	1.43	-.57	-542.57

423 CIRCULAR 24.C/ 24.C INFLOW 424 OUTFLOW 422 H.NO. 423

YU	34.CC	YL	33.CC	QF	2C.79	AI	.CC	RES	.C	QDLM	1.87	VNORM	.CC	DJC	-.65	DLC	-.65	CLM	16.4	CAP	4.3
SU	576.33	SL	576.33	AF	3.14	GAMMA	.333	TW	.33	HDLM	.41			DJS	-541.65	DLS	-541.65	VLM	7.31	QLM/QF	.79
L	2CC.C	DY	1.CC	VF	6.62	SCAR	NONE	CD	.CC	VDLM	4.1C	HAIGHT	.41	HUM	1.35	HLP	1.35	RAIN	SH. 2		
S	.533	N	.3133							DWR	.33	VNIGHT	4.13	YJM	35.35	YLM	38.35				

RAIN	QLM	VLM	QQMAX	HUM	DUC	DUS	HLM	DLC	DLS
SH. 2	16.4	7.31	.CC	1.35	-.65	-54C.65	1.35	-.65	-541.65
SH. 3	17.2	7.39	.33	1.39	-.61	-543.61	1.39	-.61	-541.61
SH. 4	18.C	7.45	.CC	1.44	-.56	-54C.56	1.43	-.57	-541.57

424 CIRCULAR 24.C/ 24.C INFLOW 425 OUTFLOW 423 H.NO. 424

YU	35.33	YL	34.33	QF	21.79	AI	.33	RES	.3	QDLM	1.87	VNORM	.3C	DJC	-.65	DLC	-.65	CLM	16.5	CAP	4.3
SU	576.33	SL	576.33	AF	3.14	GAMMA	.333	TW	.33	HDLM	.41			DJS	-539.65	DLS	-543.65	VLM	7.31	QLM/QF	.79
L	2CC.C	DY	1.CC	VF	6.62	SCAR	NONE	CD	.CC	VDLM	4.1C	HAIGHT	.41	HUM	1.35	HLP	1.35	RAIN	SH. 2		
S	.533	N	.3133							DWR	.33	VNIGHT	4.13	YJM	36.35	YLM	35.35				

RAIN	QLM	VLM	QQMAX	HUM	DUC	DUS	HLM	DLC	DLS
SH. 2	16.5	7.31	.CC	1.35	-.65	-539.65	1.35	-.65	-540.65
SH. 3	17.2	7.39	.33	1.39	-.61	-539.61	1.39	-.61	-543.61
SH. 4	18.C	7.45	.CC	1.44	-.56	-539.56	1.44	-.56	-54C.56

425 CIRCULAR 24.C/ 24.C INFLOW 426 OUTFLOW 424 H.NO. 425

YU	36.33	YL	35.33	QF	21.79	AI	.33	RES	.3	QDLM	1.87	VNORM	.33	DJC	-.65	DLC	-.65	CLM	16.5	CAP	4.3
SU	576.33	SL	576.33	AF	3.14	GAMMA	.333	TW	.33	HDLM	.41			DJS	-538.65	DLS	-539.65	VLM	7.32	QLM/QF	.79
L	2CC.C	DY	1.CC	VF	6.62	SCAR	NONE	CD	.CC	VDLM	4.1C	HAIGHT	.41	HUM	1.35	HLP	1.35	RAIN	SH. 2		
S	.533	N	.3133							DWR	.33	VNIGHT	4.13	YJM	37.35	YLM	36.35				

RAIN	QLM	VLM	QQMAX	HUM	DUC	DUS	HLM	DLC	DLS
SH. 2	16.5	7.32	.CC	1.35	-.65	-538.65	1.35	-.65	-539.65
SH. 3	17.2	7.40	.33	1.39	-.61	-538.61	1.39	-.61	-539.61
SH. 4	18.C	7.45	.CC	1.44	-.56	-538.56	1.44	-.56	-539.56

426 CIRCULAR 24.C/ 24.C INFLOW 427 OUTFLOW 425 H.NO. 426

YU	37.33	YL	36.33	QF	21.79	AI	.33	RES	.3	QDLM	1.87	VNORM	.33	DJC	-.65	DLC	-.65	CLM	16.5	CAP	4.3
SU	576.33	SL	576.33	AF	3.14	GAMMA	.333	TW	.33	HDLM	.41			DJS	-537.65	DLS	-538.65	VLM	7.32	QLM/QF	.79
L	2CC.C	DY	1.CC	VF	6.62	SCAR	NONE	CD	.CC	VDLM	4.1C	HAIGHT	.41	HUM	1.35	HLP	1.35	RAIN	SH. 2		
S	.533	N	.3133							DWR	.33	VNIGHT	4.13	YJM	38.35	YLM	37.35				

RAIN	QLM	VLM	QQMAX	HUM	DUC	DUS	HLM	DLC	DLS
SH. 2	16.5	7.32	.CC	1.35	-.65	-537.65	1.35	-.65	-538.65
SH. 3	17.3	7.41	.33	1.39	-.61	-537.61	1.39	-.61	-538.61
SH. 4	18.C	7.45	.CC	1.44	-.56	-537.56	1.44	-.56	-538.56

STORM + COMBINED SEWER MODEL EVALUATION
HYPOTHETICAL PIPE NETWORK

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03.07.1974

427 CIRCULAR 24.C/ 24.C INFLOW 428 OUTFLOW 426 P.NO. 427

YU	38.0C	YL	37.CC	QF	2C.79	AI	.CC	RES	.C	QDLM	1.87	VACRP	.CC	DUC	-.64	DLC	-.65	GLM	16.6	CAP	8.2
SU	576.33	SL	576.33	AF	3.14	GAMMA	.033	TW	.33	HDLM	.81			DUS	-536.64	DLS	-537.65	VLM	7.33	QLM/QF	.91
L	2CC.C	DY	1.CC	VF	6.62	SCAR	NONE	CD	.CC	VDLM	4.1C	HAIGHI	.81	HUM	1.36	HLM	1.35	RAIN SH. 2			
S	.533	N	.3133							DWR	.33	VNIGHI	8.13	YJM	39.36	YLM	38.35				

RAIN	QLM	VLM	QOMAX	HUM	DUC	DUS	HLM	DLC	DLS
SH. 2	16.6	7.33	.CC	1.36	-.64	-536.64	1.35	-.65	-537.65
SH. 3	17.3	7.43	.33	1.39	-.61	-536.61	1.39	-.61	-537.61
SH. 4	18.C	7.45	.CC	1.44	-.56	-536.56	1.44	-.56	-537.56

428 CIRCULAR 24.C/ 24.C INFLOW 429 OUTFLOW 427 P.NO. 428

YU	39.33	YL	38.33	QF	23.79	AI	.33	RES	.3	QDLM	1.87	VNORM	.33	DUC	-.64	DLC	-.64	GLM	16.6	CAP	8.2
SU	576.33	SL	576.33	AF	3.14	GAMMA	.033	TW	.33	HDLM	.81			DUS	-536.64	DLS	-536.64	VLM	7.33	QLM/QF	.91
L	2CC.C	DY	1.CC	VF	6.62	SCAR	NONE	CD	.CC	VDLM	4.1C	HAIGHI	.81	HUM	1.36	HLM	1.36	RAIN SH. 2			
S	.533	N	.3133							DWR	.33	VNIGHI	8.13	YJM	43.36	YLM	39.36				

RAIN	QLM	VLM	QOMAX	HUM	DUC	DUS	HLM	DLC	DLS
SH. 2	16.6	7.33	.CC	1.36	-.64	-535.64	1.36	-.64	-536.64
SH. 3	17.3	7.43	.33	1.39	-.61	-535.61	1.39	-.61	-536.61
SH. 4	18.C	7.45	.CC	1.44	-.56	-535.56	1.44	-.56	-536.56

429 CIRCULAR 24.C/ 24.C INFLOW 43C OUTFLOW 428 P.NO. 429

YU	43.33	YL	39.33	QF	23.79	AI	.33	RES	.3	QDLM	1.87	VNORM	.33	DUC	-.64	DLC	-.64	GLM	15.7	CAP	8.1
SU	576.33	SL	576.33	AF	3.14	GAMMA	.033	TW	.33	HDLM	.81			DUS	-536.64	DLS	-535.64	VLM	7.34	QLM/QF	.91
L	2CC.C	DY	1.CC	VF	6.62	SCAR	NONE	CD	.CC	VDLM	4.1C	HAIGHI	.81	HUM	1.36	HLM	1.36	RAIN SH. 2			
S	.533	N	.3133							DWR	.33	VNIGHI	8.13	YJM	41.36	YLM	43.36				

RAIN	QLM	VLM	QOMAX	HUM	DUC	DUS	HLM	DLC	DLS
SH. 2	16.7	7.34	.CC	1.36	-.64	-534.64	1.36	-.64	-535.64
SH. 3	17.3	7.41	.33	1.43	-.63	-534.63	1.39	-.61	-535.61
SH. 4	18.C	7.46	.CC	1.44	-.56	-534.56	1.44	-.56	-535.56

43C CIRCULAR 24.C/ 24.C INFLOW 431 OUTFLOW 429 P.NO. 430

YU	41.33	YL	43.33	QF	27.79	AI	.33	RES	.3	QDLM	1.87	VNORM	.33	DUC	-.64	DLC	-.64	GLM	15.8	CAP	8.3
SU	576.33	SL	576.33	AF	3.14	GAMMA	.033	TW	.33	HDLM	.81			DUS	-533.64	DLS	-534.64	VLM	7.35	QLM/QF	.91
L	2CC.C	DY	1.CC	VF	6.62	SCAR	NONE	CD	.CC	VDLM	4.1C	HAIGHI	.81	HUM	1.36	HLM	1.36	RAIN SH. 2			
S	.533	N	.3133							DWR	.33	VNIGHI	8.13	YJM	42.36	YLM	41.36				

RAIN	QLM	VLM	QOMAX	HUM	DUC	DUS	HLM	DLC	DLS
SH. 2	16.8	7.35	.CC	1.36	-.64	-533.64	1.36	-.64	-534.64
SH. 3	17.4	7.41	.33	1.43	-.63	-533.63	1.43	-.63	-534.63
SH. 4	18.1	7.46	.CC	1.44	-.56	-533.56	1.44	-.56	-534.56

STORM + COMBINED SEWER MODEL EVALUATION
HYPOTHETICAL PIPE NETWORK

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03.07.1974

#31 CIRCULAR 24.0/ 24.0 INFLOW #32 OUTFLOW #30 R.NO. #31

YU 42.70 YL 41.00 QF 20.79 AI .00 RES .0 QDLM 1.87 VNORM .00 DJC -.63 DLC -.64 CLM 16.8 CAP 4.0
SU 576.33 SL 576.33 AF 3.14 GAMMA .333 TW .33 HDLM .41 DJS -532.63 DLS -533.64 VLM 7.36 QLM/QF .81
L 200.0 DY 1.00 VF 6.62 SCAR NONE CD .00 VDLM 4.10 HEIGHT .81 HJM 1.37 HLP 1.36 RAIN SH. 2
S .500 N .0133 DWR .33 VNIGHT 4.10 YJM 43.37 YLM 42.36

RAIN	CLP	VLM	DQMAX	HJM	DLC	DLS	HLM	DLC	DLS
SH. 2	16.8	7.36	.00	1.37	-.63	-532.63	1.36	-.64	-533.64
SH. 3	17.8	7.42	.33	1.41	-.63	-532.63	1.41	-.63	-533.63
SH. 4	18.1	7.46	.00	1.44	-.56	-532.56	1.44	-.56	-533.56

#32 CIRCULAR 24.0/ 24.0 INFLOW #33 OUTFLOW #31 R.NO. #32

YU 43.33 YL 42.33 QF 20.79 AI .33 RES .3 QDLM 1.87 VNORM .33 DJC -.63 DLC -.63 CLM 16.8 CAP 4.0
SU 576.33 SL 576.33 AF 3.14 GAMMA .333 TW .33 HDLM .41 DJS -531.63 DLS -532.63 VLM 7.37 QLM/QF .81
L 200.0 DY 1.00 VF 6.62 SCAR NONE CD .00 VDLM 4.10 HEIGHT .81 HJM 1.37 HLP 1.37 RAIN SH. 2
S .500 N .0133 DWR .33 VNIGHT 4.10 YJM 44.37 YLM 43.37

RAIN	QLM	VLM	DQMAX	HJM	DJC	DJS	HLM	DLC	DLS
SH. 2	16.8	7.37	.00	1.37	-.63	-531.63	1.37	-.63	-532.63
SH. 3	17.5	7.42	.33	1.41	-.59	-531.59	1.41	-.63	-532.63
SH. 4	18.1	7.46	.00	1.45	-.55	-531.55	1.44	-.56	-532.56

#33 CIRCULAR 24.0/ 24.0 INFLOW #34 OUTFLOW #32 R.NO. #33

YU 44.33 YL 43.33 QF 20.79 AI .33 RES .3 QDLM 1.87 VNORM .33 DJC -.63 DLC -.63 CLM 16.9 CAP 3.9
SU 576.33 SL 576.33 AF 3.14 GAMMA .333 TW .33 HDLM .41 DJS -531.63 DLS -531.63 VLM 7.38 QLM/QF .81
L 200.0 DY 1.00 VF 6.62 SCAR NONE CD .00 VDLM 4.10 HEIGHT .81 HJM 1.37 HLP 1.37 RAIN SH. 2
S .500 N .0133 DWR .33 VNIGHT 4.10 YJM 45.37 YLM 44.37

RAIN	QLM	VLM	DQMAX	HJM	DJC	DJS	HLM	DLC	DLS
SH. 2	16.9	7.38	.00	1.37	-.63	-530.63	1.37	-.63	-531.63
SH. 3	17.6	7.42	.33	1.41	-.59	-530.59	1.41	-.59	-531.59
SH. 4	18.2	7.46	.00	1.45	-.55	-530.55	1.45	-.55	-531.55

#34 CIRCULAR 24.0/ 24.0 INFLOW #35 OUTFLOW #33 R.NO. #34

YU 45.33 YL 44.33 QF 20.79 AI .33 RES .3 QDLM 1.87 VNORM .33 DJC -.62 DLC -.63 CLM 17.1 CAP 3.8
SU 576.33 SL 576.33 AF 3.14 GAMMA .333 TW .33 HDLM .41 DJS -529.62 DLS -530.63 VLM 7.38 QLM/QF .82
L 200.0 DY 1.00 VF 6.62 SCAR NONE CD .00 VDLM 4.10 HEIGHT .81 HJM 1.38 HLP 1.37 RAIN SH. 2
S .500 N .0133 DWR .33 VNIGHT 4.10 YJM 46.38 YLM 45.37

RAIN	QLM	VLM	DQMAX	HJM	DJC	DJS	HLM	DLC	DLS
SH. 2	17.0	7.38	.00	1.38	-.62	-529.62	1.37	-.63	-530.63
SH. 3	17.6	7.43	.33	1.41	-.59	-529.59	1.41	-.59	-530.59
SH. 4	18.2	7.46	.00	1.45	-.55	-529.55	1.45	-.55	-530.55

STORM + COMBINED SEWER MODEL EVALUATION
HYPOTHETICAL PIPE NETWORK

CALCULATION NO. 9652
03.07.1974

435 CIRCULAR 24.00/ 24.0 INFLOW 436 OUTFLOW 434 P.NO. 435

YU	46.00	YL	45.00	QF	20.79	AT	.00	RES	.0	QDLM	1.87	VNORM	.00	DUC	-.62	DLC	-.62
SU	576.00	SL	576.00	AF	3.14	GAMMA	.000	TW	.00	HDLM	.41			DUS	-528.62	DLS	-529.62
L	200.0	DY	1.00	VF	6.62	SCAR	NONE	GD	.00	VDLM	8.10	HEIGHT	.41	HUM	1.38	HLP	1.38
S	.500	N	.0100							DWM	.00	VWEIGHT	8.10	YUM	47.38	YLM	46.38

RAIN	QLM	VLM	QQMAX	HUM	DUC	DUS	HLM	DLC	DLS
SH. 2	17.1	7.39	.00	1.38	-.62	-528.62	1.38	-.62	-529.62
SH. 3	17.6	7.83	.00	1.42	-.58	-528.58	1.41	-.59	-529.59
SH. 4	18.2	7.87	.00	1.45	-.55	-528.55	1.45	-.55	-529.55

436 CIRCULAR 24.00/ 24.0 INFLOW 437 OUTFLOW 435 P.NO. 436

YU	47.00	YL	46.00	QF	20.79	AT	.00	RES	.0	QDLM	1.87	VNORM	.00	DUC	-.61	DLC	-.62
SU	576.00	SL	576.00	AF	3.14	GAMMA	.000	TW	.00	HDLM	.41			DUS	-527.61	DLS	-528.62
L	200.0	DY	1.00	VF	6.62	SCAR	NONE	GD	.00	VDLM	8.10	HEIGHT	.41	HUM	1.39	HLP	1.38
S	.500	N	.0100							DWM	.00	VWEIGHT	8.10	YUM	48.39	YLM	47.38

RAIN	QLM	VLM	QQMAX	HUM	DUC	DUS	HLM	DLC	DLS
SH. 2	17.2	7.40	.00	1.39	-.61	-527.61	1.38	-.62	-528.62
SH. 3	17.7	7.83	.00	1.42	-.58	-527.58	1.42	-.59	-528.59
SH. 4	18.2	7.87	.00	1.45	-.55	-527.55	1.45	-.55	-528.55

437 CIRCULAR 24.00/ 24.0 INFLOW 438 OUTFLOW 436 P.NO. 437

YU	48.00	YL	47.00	QF	20.79	AT	.00	RES	.0	QDLM	1.87	VNORM	.00	DUC	-.61	DLC	-.61
SU	576.00	SL	576.00	AF	3.14	GAMMA	.000	TW	.00	HDLM	.41			DUS	-526.61	DLS	-527.61
L	200.0	DY	1.00	VF	6.62	SCAR	NONE	GD	.00	VDLM	8.10	HEIGHT	.41	HUM	1.39	HLP	1.39
S	.500	N	.0100							DWM	.00	VWEIGHT	8.10	YUM	49.39	YLM	48.39

RAIN	QLM	VLM	QQMAX	HUM	DUC	DUS	HLM	DLC	DLS
SH. 2	17.2	7.40	.00	1.39	-.61	-526.61	1.39	-.61	-527.61
SH. 3	17.7	7.83	.00	1.42	-.58	-526.58	1.42	-.58	-527.58
SH. 4	18.2	7.87	.00	1.45	-.55	-526.55	1.45	-.55	-527.55

438 CIRCULAR 24.00/ 24.0 INFLOW 439 OUTFLOW 437 P.NO. 438

YU	49.00	YL	48.00	QF	20.79	AT	.00	RES	.0	QDLM	1.87	VNORM	.00	DUC	-.61	DLC	-.61
SU	576.00	SL	576.00	AF	3.14	GAMMA	.000	TW	.00	HDLM	.41			DUS	-525.61	DLS	-526.61
L	200.0	DY	1.00	VF	6.62	SCAR	NONE	GD	.00	VDLM	8.10	HEIGHT	.41	HUM	1.39	HLP	1.39
S	.500	N	.0100							DWM	.00	VWEIGHT	8.10	YUM	50.39	YLM	49.39

RAIN	QLM	VLM	QQMAX	HUM	DUC	DUS	HLM	DLC	DLS
SH. 2	17.3	7.40	.00	1.39	-.61	-525.61	1.39	-.61	-526.61
SH. 3	17.7	7.44	.00	1.42	-.58	-525.58	1.42	-.58	-526.58
SH. 4	18.3	7.87	.00	1.45	-.55	-525.55	1.45	-.55	-526.55

439 CIRCULAR 24.C/ 24.C INFLOW 441 OUTFLOW 438 P.NO. 439

YU	50.CC	YL	49.CC	QF	20.79	AI	.CC	RES	.C	QOLM	1.87	VNORM	.CC	QUC	-.61	QLC	-.61	QLM	17.3	CAP	3.5
SU	576.JJ	SL	576.JJ	AF	3.14	GAMMA	.JJJ	TW	.JJ	HOLM	.41			QUS	-524.61	QLS	-525.61	VLM	7.41	QLM/QF	.43
L	2CC.C	DY	1.CC	VF	6.62	SCAR	NONE	CD	.CC	VOLM	4.1C	HAIGHT	.41	HUM	1.39	HLM	1.39	RAIN	SH. 2		
S	.5JJ	N	.JJJJ							DWR	.JJ	VNIGHT	4.1J	YJM	51.39	YLM	53.39				

RAIN	QLM	VLM	QQMAX	HUM	QUC	QUS	HLM	QLC	QLS
SH. 2	17.3	7.4C	.CC	1.39	-.61	-524.61	1.39	-.61	-525.61
SH. 3	17.8	7.44	.JJ	1.42	-.58	-524.58	1.42	-.58	-525.58
SH. 4	18.3	7.47	.CC	1.45	-.55	-524.55	1.45	-.55	-525.55

440 CIRCULAR 24.C/ 24.C INFLOW 441 OUTFLOW 439 P.NO. 440

* YU	51.JJ	YL	51.JJ	QF	20.79	AI	.JJ	RES	.J	QOLM	1.87	VNORM	.JJ	QUC	-.61	QLC	-.61	QLM	17.3	CAP	3.5
SU	576.JJ	SL	576.JJ	AF	3.14	GAMMA	.JJJ	TW	.JJ	HOLM	.41			QUS	-523.61	QLS	-524.61	VLM	7.41	QLM/QF	.43
L	2CC.C	DY	1.CC	VF	6.62	SCAR	NONE	CD	.CC	VOLM	4.1C	HAIGHT	.41	HUM	1.4C	HLM	1.39	RAIN	SH. 2		
S	.5JJ	N	.JJJJ							DWR	.JJ	VNIGHT	4.1J	YJM	52.43	YLM	51.39				

RAIN	QLM	VLM	QQMAX	HUM	QUC	QUS	HLM	QLC	QLS
SH. 2	17.3	7.41	.CC	1.4C	-.6C	-523.6C	1.39	-.61	-524.61
SH. 3	17.8	7.44	.JJ	1.42	-.58	-523.58	1.42	-.58	-524.58
SH. 4	18.3	7.47	.CC	1.45	-.55	-523.55	1.45	-.55	-524.55

441 CIRCULAR 24.C/ 24.C INFLOW 442 OUTFLOW 44C P.NO. 441

YU	52.JJ	YL	51.JJ	QF	20.79	AI	.JJ	RES	.J	QOLM	1.87	VNORM	.JJ	QUC	-.59	QLC	-.6J	QLM	17.4	CAP	3.3
SU	576.JJ	SL	576.JJ	AF	3.14	GAMMA	.JJJ	TW	.JJ	HOLM	.41			QUS	-522.59	QLS	-523.6J	VLM	7.42	QLM/QF	.34
L	2CC.C	DY	1.CC	VF	6.62	SCAR	NONE	CD	.CC	VOLM	4.1C	HAIGHT	.41	HUM	1.41	HLM	1.4C	RAIN	SH. 2		
S	.5JJ	N	.JJJJ							DWR	.JJ	VNIGHT	4.1J	YJM	53.41	YLM	52.4C				

RAIN	QLM	VLM	QQMAX	HUM	QUC	QUS	HLM	QLC	QLS
SH. 2	17.4	7.42	.CC	1.41	-.59	-522.59	1.4C	-.6C	-523.6C
SH. 3	17.8	7.44	.JJ	1.42	-.58	-522.58	1.42	-.58	-523.58
SH. 4	18.3	7.47	.CC	1.45	-.55	-522.55	1.45	-.55	-523.55

442 CIRCULAR 24.C/ 24.C INFLOW 443 OUTFLOW 441 P.NO. 442

YU	53.JJ	YL	52.JJ	QF	21.79	AI	.JJ	RES	.J	QOLM	1.87	VNORM	.JJ	QUC	-.59	QLC	-.59	QLM	17.6	CAP	3.2
SU	576.JJ	SL	576.JJ	AF	3.14	GAMMA	.JJJ	TW	.JJ	HOLM	.41			QUS	-521.59	QLS	-522.59	VLM	7.42	QLM/QF	.34
L	2CC.C	DY	1.CC	VF	6.62	SCAR	NONE	CD	.CC	VOLM	4.1C	HAIGHT	.41	HUM	1.41	HLM	1.41	RAIN	SH. 2		
S	.5JJ	N	.JJJJ							DWR	.JJ	VNIGHT	4.1J	YJM	54.41	YLM	53.41				

RAIN	QLM	VLM	QQMAX	HUM	QUC	QUS	HLM	QLC	QLS
SH. 2	17.6	7.42	.CC	1.41	-.59	-521.59	1.41	-.59	-522.59
SH. 3	17.8	7.44	.JJ	1.43	-.57	-521.57	1.42	-.58	-522.58
SH. 4	18.3	7.47	.CC	1.46	-.54	-521.54	1.45	-.55	-522.55

443 CIRCULAR 24.0/ 24.0 INFLOW 444 OUTFLOW 442 P.NO. 443

YU	58.00	YI	53.00	QF	20.79	AI	.00	RES	.0	QDLM	1.87	VNORM	.00	DJC	-.58	DLC	-.59	CAP	3.1
SU	574.33	SI	574.33	AF	3.14	GAMMA	.033	TW	.33	HDLM	.41			DJS	-520.58	DLS	-521.59	VLM	7.43	QLM/QF	.85
L	200.0	DY	1.00	VF	6.62	SCAR	NONE	CO	.00	VDLM	8.10	HEIGHT	.41	HUM	1.42	HLM	1.41	RAIN	SM. 2		
S	.533	N	.0133							DWR	.33	WEIGHT	8.13	YJM	55.42	YLM	58.41				

RAIN	QLM	VLM	QQMAX	HUM	DJC	DJS	HLM	DLC	DLS
SM. 2	17.6	7.43	.00	1.42	-.58	-520.58	1.41	-.59	-521.59
SM. 3	17.9	7.45	.33	1.44	-.56	-521.56	1.43	-.57	-521.57
SM. 4	18.3	7.47	.00	1.46	-.54	-520.54	1.46	-.54	-521.54

444 CIRCULAR 24.0/ 24.0 INFLOW 445 OUTFLOW 443 P.NO. 444

YU	56.33	YL	56.33	QF	23.79	AI	.33	RES	.3	QDLM	1.87	VNORM	.33	DJC	-.58	DLC	-.58	QLM	17.7	CAP	3.1
SU	574.33	SL	576.33	AF	3.14	GAMMA	.033	TW	.33	HDLM	.41			DJS	-519.58	DLS	-523.58	VLM	7.43	QLM/QF	.95
L	200.0	DY	1.00	VF	6.62	SCAR	NONE	CO	.00	VDLM	8.10	HEIGHT	.41	HUM	1.42	HLM	1.42	RAIN	SM. 2		
S	.533	N	.0133							DWR	.33	WEIGHT	8.13	YJM	56.42	YLM	55.42				

RAIN	QLM	VLM	QQMAX	HUM	DJC	DJS	HLM	DLC	DLS
SM. 2	17.7	7.43	.00	1.42	-.58	-519.58	1.42	-.58	-520.58
SM. 3	18.0	7.45	.33	1.44	-.56	-519.56	1.44	-.55	-521.56
SM. 4	18.4	7.48	.00	1.46	-.54	-519.54	1.46	-.54	-520.54

445 CIRCULAR 24.0/ 24.0 INFLOW 446 OUTFLOW 444 P.NO. 445

YU	56.00	YL	55.33	QF	23.79	AI	.33	RES	.3	QDLM	1.87	VNORM	.33	DJC	-.58	DLC	-.58	QLM	17.8	CAP	3.1
SU	574.33	SL	576.33	AF	3.14	GAMMA	.033	TW	.33	HDLM	.41			DJS	-518.58	DLS	-519.58	VLM	7.44	QLM/QF	.95
L	200.0	DY	1.00	VF	6.62	SCAR	NONE	CO	.00	VDLM	8.10	HEIGHT	.41	HUM	1.42	HLM	1.42	RAIN	SM. 2		
S	.533	N	.0133							DWR	.33	WEIGHT	8.13	YJM	57.42	YLM	56.42				

RAIN	QLM	VLM	QQMAX	HUM	DJC	DJS	HLM	DLC	DLS
SM. 2	17.8	7.44	.00	1.42	-.58	-518.58	1.42	-.58	-519.58
SM. 3	18.1	7.46	.33	1.45	-.55	-518.55	1.44	-.55	-519.56
SM. 4	18.5	7.48	.00	1.47	-.53	-518.53	1.46	-.54	-519.54

446 CIRCULAR 24.0/ 24.0 INFLOW 447 OUTFLOW 445 P.NO. 446

YU	57.33	YL	56.33	QF	23.79	AI	.33	RES	.3	QDLM	1.87	VNORM	.33	DJC	-.57	DLC	-.58	QLM	17.8	CAP	3.1
SU	574.33	SL	576.33	AF	3.14	GAMMA	.033	TW	.33	HDLM	.41			DJS	-517.57	DLS	-518.58	VLM	7.44	QLM/QF	.94
L	200.0	DY	1.00	VF	6.62	SCAR	NONE	CO	.00	VDLM	8.10	HEIGHT	.41	HUM	1.43	HLM	1.42	RAIN	SM. 2		
S	.533	N	.0133							DWR	.33	WEIGHT	8.13	YJM	58.43	YLM	57.42				

RAIN	QLM	VLM	QQMAX	HUM	DJC	DJS	HLM	DLC	DLS
SM. 2	17.8	7.44	.00	1.43	-.57	-517.57	1.42	-.58	-518.58
SM. 3	18.2	7.47	.33	1.46	-.54	-517.54	1.45	-.55	-518.55
SM. 4	18.5	7.48	.00	1.47	-.53	-517.53	1.47	-.53	-518.53

STORM + COMBINED SEWER MODEL EVALUATION
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447 CIRCULAR 24.0/ 24.0 INFLOW 448 OUTFLOW 446 P.NO. 447

YU	58.00	YL	47.00	QF	26.79	AT	.00	RES	.0	QOLM	1.87	VNORM	.00	DJC	-.56	DLC	-.57	CLM	17.9	CAP	2.9
SU	976.33	SL	976.33	AF	1.14	GAMMA	.000	TW	.00	HOLM	.91			DJS	-516.56	DLS	-517.57	VLM	7.45	QLM/QF	.64
L	200.0	DY	1.00	VF	6.62	SCAR	NONE	QD	.00	VOLM	8.10	HEIGHT	.91	HUP	1.48	HLP	1.43	RAIN	SH. 2		
S	.500	N	.0133							DWR	.33	WEIGHT	8.13	YJM	59.48	YLM	58.43				

RAIN	QLP	VLP	QOMAX	HUM	DJC	DJS	HLP	DLC	DLS
SH. 2	17.9	7.45	.00	1.48	-.56	-516.56	1.43	-.57	-517.57
SH. 3	18.3	7.47	.33	1.46	-.54	-516.54	1.44	-.54	-517.54
SH. 4	18.6	7.49	.00	1.47	-.53	-516.53	1.47	-.53	-517.53

448 CIRCULAR 24.0/ 24.0 INFLOW 449 OUTFLOW 447 P.NO. 448

YU	59.33	YL	48.33	QF	23.79	AT	.03	RES	.3	QOLM	1.87	VNORM	.33	DJC	-.54	DLC	-.56	CLM	18.1	CAP	2.7
SU	976.33	SL	976.33	AF	1.14	GAMMA	.000	TW	.33	HOLM	.91			DJS	-515.54	DLS	-516.56	VLM	7.46	QLM/QF	.67
L	200.0	DY	1.00	VF	6.62	SCAR	NONE	QD	.00	VOLM	8.10	HEIGHT	.91	HUP	1.46	HLP	1.44	RAIN	SH. 2		
S	.500	N	.0133							DWR	.33	WEIGHT	8.13	YJM	60.46	YLM	59.44				

RAIN	QLM	VLM	QOMAX	HUM	DJC	DJS	HLP	DLC	DLS
SH. 2	18.1	7.46	.00	1.46	-.54	-515.54	1.44	-.54	-516.54
SH. 3	18.5	7.48	.33	1.47	-.53	-515.53	1.46	-.54	-516.54
SH. 4	18.6	7.49	.00	1.48	-.52	-515.52	1.47	-.53	-516.53

449 CIRCULAR 24.0/ 24.0 INFLOW 450 OUTFLOW 448 P.NO. 449

YU	60.33	YL	49.33	QF	23.79	AT	.33	RES	.3	QOLM	1.87	VNORM	.33	DJC	-.53	DLC	-.54	CLM	18.3	CAP	2.5
SU	976.33	SL	976.33	AF	1.14	GAMMA	.000	TW	.33	HOLM	.91			DJS	-514.53	DLS	-515.54	VLM	7.47	QLM/QF	.68
L	200.0	DY	1.00	VF	6.62	SCAR	NONE	QD	.00	VOLM	8.10	HEIGHT	.91	HUP	1.47	HLP	1.46	RAIN	SH. 2		
S	.500	N	.0133							DWR	.33	WEIGHT	8.13	YJM	61.47	YLM	60.46				

RAIN	QLM	VLM	QOMAX	HUM	DJC	DJS	HLP	DLC	DLS
SH. 2	18.3	7.47	.00	1.47	-.53	-514.53	1.46	-.54	-515.54
SH. 3	18.6	7.49	.33	1.48	-.52	-514.52	1.47	-.53	-515.53
SH. 4	18.7	7.49	.00	1.48	-.52	-514.52	1.48	-.52	-515.52

450 CIRCULAR 24.0/ 24.0 INFLOW 451 OUTFLOW 449 P.NO. 450

YU	61.33	YL	50.33	QF	23.79	AT	.33	RES	.3	QOLM	1.87	VNORM	.33	DJC	-.52	DLC	-.53	CLM	18.5	CAP	2.3
SU	976.33	SL	976.33	AF	1.14	GAMMA	.000	TW	.33	HOLM	.91			DJS	-513.52	DLS	-514.53	VLM	7.48	QLM/QF	.69
L	200.0	DY	1.00	VF	6.62	SCAR	NONE	QD	.00	VOLM	8.10	HEIGHT	.91	HUP	1.48	HLP	1.47	RAIN	SH. 2		
S	.500	N	.0133							DWR	.33	WEIGHT	8.13	YJM	62.48	YLM	61.47				

RAIN	QLM	VLM	QOMAX	HUM	DJC	DJS	HLP	DLC	DLS
SH. 2	18.5	7.48	.00	1.48	-.52	-513.52	1.47	-.53	-514.53
SH. 3	18.7	7.49	.33	1.49	-.51	-513.51	1.48	-.52	-514.52
SH. 4	18.7	7.49	.00	1.49	-.51	-513.51	1.48	-.52	-514.52

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451 ORIFICE 24.0/ 12.0 INFLOW H 4 OUTFLOW 450 H.NO. IMAGIN. SEW. 451

YU	61.00	YL	61.00	QF	12.46	AI	.00	RES	.0	QDLM	1.87	VNORM	.00	DUC	.49	DLC	.48	GLM	18.8	CAP	-6.3
SU	.00	SL	.00	AF	1.88	GAMMA	.000	TW	.00	HDLM	.41			DUS	.00	DLS	.00	VLM	9.95	QLM/QF	1.51
L	.2	DY	.00	VF	6.61	SCAR	NONE	QD	.00	VDLM	3.89	HNIGHT	.37	HJM	1.49	HLM	1.48	RAIN	SH. 2		
S	.500	N	.0100							DWR	.03	VNIGHT	3.89	YUM	62.49	YLM	62.48				

RAIN	QLM	VLM	DQMAX	HUM	DUC	DUS	HLM	DLC	DLS
SH. 2	18.8	9.95	.00	1.49	.49	.00	1.48	.49	.00
SH. 3	18.8	9.96	.00	1.49	.49	.00	1.49	.49	.00
SH. 4	18.8	9.96	.00	1.49	.49	.00	1.49	.49	.00

452 CIRCULAR 24.0/ 24.0 INFLOW H 4 OUTFLOW H.NO. IMAGIN. SEW. 452

YU	61.11	YL	61.10	QF	20.79	AI	.00	RES	.0	QDLM	.00	VNORM	.00	DUC	-2.00	DLC	-2.00	GLM	.0	CAP	20.8
SU	.00	SL	.00	AF	3.14	GAMMA	.000	TW	.00	HDLM	.00			DUS	.00	DLS	.00	VLM	.00	QLM/QF	.00
L	2.0	DY	.01	VF	6.62	SCAR	NONE	QD	.00	VDLM	.00	HNIGHT	.00	HJM	.00	HLM	.00	RAIN	SH. 2		
S	.500	N	.0100							DWR	.00	VNIGHT	.00	YUM	61.11	YLM	61.10				

RAIN	QLM	VLM	DQMAX	HUM	DLC	DLS	HLM	DLC	DLS
SH. 2	.0	.00	.00	.00	-2.00	.00	.00	-2.00	.00
SH. 3	.0	.00	.00	.00	-2.00	.00	.00	-2.00	.00
SH. 4	.0	.00	.00	.00	-2.00	.00	.00	-2.00	.00

453 CIRCULAR 24.0/ 24.0 INFLOW OUTFLOW H 4 H.NO. RECEIVING IMAGIN. SEW. 453

YU	61.00	YL	61.00	QF	20.79	AI	.00	RES	.0	QDLM	1.87	VNORM	.00	DUC	.91	DLC	.91	GLM	18.8	CAP	2.0
SU	.00	SL	.00	AF	3.14	GAMMA	.000	TW	.00	HDLM	.41			DUS	.00	DLS	.00	VLM	5.98	QLM/QF	.90
L	.2	DY	.00	VF	6.62	SCAR	NONE	QD	.00	VDLM	4.10	HNIGHT	.41	HJM	2.91	HLM	2.91	RAIN	SH. 2		
S	.500	N	.0100							DWR	.00	VNIGHT	4.10	YUM	63.91	YLM	63.91				

RAIN	QLM	VLM	DQMAX	HUM	DLC	DUS	HLM	DLC	DLS
SH. 2	18.8	5.98	.00	2.91	.91	.00	2.91	.91	.00
SH. 3	18.8	5.98	.00	2.92	.92	.00	2.92	.92	.00
SH. 4	18.8	5.98	.00	2.92	.92	.00	2.92	.92	.00

STORM + COMBINED SEWER MODEL EVALUATION
HYPOTHETICAL PIPE NETWORK

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	RAIN SM. 2				RAIN SM. 1				RAIN SM. 4			
	T	QDU	QU	HU	T	QDU	QU	HU	T	QDU	QU	HU
	.1	.0	.0	.00	.0	.0	.0	.00	.0	.0	.0	.00
	5.0	.1	.1	.33	5.0	.1	.1	.33	5.0	.0	.1	.03
	10.0	.0	.0	.00	10.0	.0	.0	.00	10.0	.0	.0	.00
	15.0	.1	.1	.33	15.0	.1	.1	.33	15.0	.1	.1	.30
	20.0	.0	.0	.00	20.0	.0	.0	.00	20.0	.0	.0	.00
	25.0	.4	.4	.19	25.0	.1	.1	.33	25.0	.1	.1	.33
	30.0	1.0	2.7	.48	30.0	.4	.7	.18	30.0	.0	.1	.06
	35.0	1.7	5.2	1.11	35.0	.9	1.8	.38	35.0	.1	.1	.06
	40.0	1.8	6.1	1.98	40.0	1.1	2.9	.96	40.0	.4	.4	.18
	45.0	1.9	7.8	2.69	45.0	1.3	4.1	.69	45.0	.7	1.0	.29
	50.0	1.9	7.6	2.85	50.0	1.2	5.6	1.15	50.0	.8	1.8	.36
	55.0	1.9	7.9	2.98	55.0	1.2	5.9	1.97	55.0	.9	2.5	.48
	60.0	.8	6.3	2.17	60.0	1.1	6.7	2.46	60.0	1.0	3.1	.52
	65.0	.9	5.2	1.39	65.0	1.1	7.5	2.58	65.0	1.1	3.7	.62
	70.0	.6	3.8	.67	70.0	1.1	8.1	2.98	70.0	1.1	4.3	.71
	75.0	.9	2.9	.93	75.0	1.1	8.5	3.31	75.0	1.1	4.7	.93
	80.0	.2	.7	.22	80.0	1.0	8.6	3.39	80.0	1.0	5.1	1.17
	85.0	.1	.4	.11	85.0	1.1	8.5	3.26	85.0	1.1	5.5	1.38
	90.0	.0	.0	.00	90.0	1.0	8.2	3.00	90.0	1.0	5.9	1.56
	95.0	.1	.1	.33	95.0	.9	7.7	2.68	95.0	1.1	6.3	1.82
	100.0	.0	.0	.00	100.0	.9	6.9	2.21	100.0	1.0	6.8	2.10
	105.0	.1	.1	.33	105.0	.9	6.1	1.71	105.0	1.1	7.2	2.33
	110.0	.0	.0	.00	110.0	.9	5.5	1.33	110.0	1.0	7.6	2.60
	115.0	.1	.1	.33	115.0	.8	4.6	.93	115.0	1.1	8.1	2.87
	120.0	.0	.0	.00	120.0	.6	3.3	.56	120.0	1.0	8.4	3.17
	125.0	.1	.1	.30	125.0	.5	2.3	.43	125.0	1.1	8.7	3.42
	130.0	.0	.0	.00	130.0	.4	1.6	.32	130.0	1.0	9.0	3.66
	135.0	.1	.1	.33	135.0	.2	.8	.21	135.0	1.1	9.2	3.82
	140.0	.0	.0	.00	140.0	.1	.4	.13	140.0	1.0	9.3	3.89
	145.0	.1	.1	.35	145.0	.1	.1	.33	145.0	1.1	9.2	3.88
	150.0	.0	.0	.00	150.0	.0	.0	.00	150.0	1.0	9.2	3.78
	155.0	.1	.1	.33	155.0	.0	.0	.33	155.0	1.1	8.9	3.58
	160.0	.0	.0	.00	160.0	.0	.0	.00	160.0	1.0	8.6	3.36
	165.0	.1	.1	.33	165.0	.1	.0	.33	165.0	1.1	8.3	3.13
	170.0	.0	.0	.00	170.0	.0	.0	.00	170.0	1.0	7.9	2.91
	175.0	.1	.1	.33	175.0	.0	.1	.33	175.0	1.1	7.6	2.70
	180.0	.0	.0	.00	180.0	.0	.0	.00	180.0	.9	6.9	2.20
	185.0	.1	.1	.33	185.0	.1	.1	.33	185.0	.9	6.5	1.92
	190.0	.0	.0	.00	190.0	.0	.0	.00	190.0	.9	6.1	1.67
	195.0	.1	.1	.33	195.0	.0	.1	.33	195.0	.9	5.8	1.48
	200.0	.0	.0	.00	200.0	.0	.0	.00	200.0	.9	5.2	1.24
	205.0	.1	.1	.33	205.0	.0	.1	.33	205.0	.9	5.1	1.01
	210.0	.0	.0	.00	210.0	.0	.0	.00	210.0	.8	4.4	.72
	215.0	.1	.1	.33	215.0	.0	.1	.33	215.0	.7	3.4	.58
	220.0	.0	.0	.00	220.0	.0	.0	.00	220.0	.6	2.7	.48
	225.0	.1	.1	.33	225.0	.0	.1	.33	225.0	.4	2.2	.42
	230.0	.0	.0	.00	230.0	.0	.0	.00	230.0	.3	1.7	.35
	235.0	.1	.1	.33	235.0	.0	.0	.33	235.0	.4	1.4	.29
	240.0	.0	.0	.00	240.0	.0	.0	.00	240.0	.3	1.0	.24
					245.0	.0	.0	.33	245.0	.2	.5	.16
					250.0	.0	.0	.00	250.0	.1	.3	.12
					255.0	.0	.0	.33	255.0	.0	.0	.02
					260.0	.0	.0	.00	260.0	.0	.0	.00
					265.0	.0	.0	.33	265.0	.0	.0	.03

STORM + COMBINED SEWER POOEL EVALUATION
HYPOTHETICAL PIPE NETWORK

CALCULATION NO. 9652
13.17.1974

ACC	RAIN SM. 2				RAIN SM. 3				RAIN SM. 4			
	T	QDU	QU	HU	T	QDU	QU	HU	T	QDU	QU	HU
	.0	1.9	1.9	.58	.0	1.9	1.9	.58	.0	1.9	1.9	.58
	5.0	1.9	1.9	.55	5.0	1.7	1.7	.53	5.0	1.7	1.7	.52
	10.0	1.8	1.8	.58	10.0	1.8	1.8	.53	10.0	1.9	1.9	.55
	15.0	1.8	1.8	.58	15.0	2.0	2.1	.57	15.0	2.0	2.1	.57
	20.0	2.4	2.4	.66	20.0	2.2	2.4	.63	20.0	1.9	2.0	.56
	25.0	2.4	3.5	1.03	25.0	2.6	3.2	.82	25.0	2.2	2.5	.69
	30.0	2.2	4.2	1.31	30.0	2.3	3.5	1.07	30.0	2.1	2.8	.73
	35.0	1.7	5.1	1.66	35.0	2.0	3.9	1.26	35.0	2.0	3.3	.95
	40.0	1.9	6.1	2.18	40.0	1.7	4.1	1.32	40.0	2.2	3.5	1.06
	45.0	1.1	6.9	2.65	45.0	1.8	4.6	1.48	45.0	1.9	3.8	1.18
	50.0	1.1	7.1	2.76	50.0	1.2	5.1	1.67	50.0	1.7	4.0	1.21
	55.0	.9	6.8	2.58	55.0	1.1	5.7	1.96	55.0	1.5	4.1	1.27
	60.0	.8	6.3	2.26	60.0	1.1	6.3	2.27	60.0	1.4	4.3	1.33
	65.0	.8	5.4	1.81	65.0	1.0	6.8	2.57	65.0	1.2	4.5	1.39
	70.0	.7	4.5	1.43	70.0	1.0	7.2	2.83	70.0	1.1	4.6	1.45
	75.0	.8	4.1	1.25	75.0	.9	7.5	3.06	75.0	1.1	4.8	1.54
	80.0	.9	3.6	1.13	80.0	.9	7.6	3.11	80.0	1.0	5.1	1.67
	85.0	1.0	3.4	1.06	85.0	.9	7.5	3.01	85.0	1.0	5.4	1.82
	90.0	1.2	3.1	.77	90.0	.9	7.2	2.84	90.0	1.0	5.7	1.97
	95.0	1.1	2.2	.60	95.0	.8	6.9	2.63	95.0	1.0	6.0	2.10
	100.0	1.3	2.1	.58	100.0	.8	6.4	2.35	100.0	1.0	6.3	2.29
	105.0	1.5	2.0	.56	105.0	.8	5.9	2.03	105.0	.9	6.6	2.43
	110.0	1.4	1.9	.55	110.0	.8	5.3	1.79	110.0	.9	6.8	2.61
	115.0	1.8	1.9	.58	115.0	.8	4.7	1.50	115.0	.9	7.1	2.77
	120.0	1.8	1.9	.58	120.0	.9	4.4	1.36	120.0	.9	7.4	2.98
	125.0	1.9	1.9	.58	125.0	.9	4.1	1.27	125.0	.9	7.6	3.13
	130.0	1.9	1.9	.58	130.0	1.0	3.9	1.18	130.0	.9	7.8	3.24
	135.0	1.9	1.9	.58	135.0	1.1	3.6	1.09	135.0	.9	8.0	3.37
	140.0	1.9	1.9	.58	140.0	1.2	3.4	1.01	140.0	.9	8.3	3.42
	145.0	1.9	1.9	.58	145.0	1.3	3.2	.82	145.0	.9	8.0	3.41
	150.0	1.9	1.9	.58	150.0	1.3	2.6	.68	150.0	.9	8.0	3.35
	155.0	1.9	1.9	.58	155.0	1.3	2.2	.62	155.0	.9	7.8	3.21
	160.0	1.9	1.9	.55	160.0	1.9	2.1	.59	160.0	.9	7.6	3.08
	165.0	1.9	1.9	.55	165.0	1.6	2.1	.58	165.0	.9	7.3	2.92
	170.0	1.9	1.9	.55	170.0	1.7	2.0	.56	170.0	.9	7.0	2.73
	175.0	1.9	1.9	.55	175.0	1.6	1.8	.50	175.0	.9	6.7	2.52
	180.0	1.9	1.9	.55	180.0	1.8	1.9	.50	180.0	.9	6.4	2.35
	185.0	1.9	1.9	.55	185.0	1.8	1.9	.50	185.0	.9	6.1	2.16
	190.0	1.9	1.9	.55	190.0	1.9	1.9	.50	190.0	.9	5.8	2.00
	195.0	1.9	1.9	.55	195.0	1.8	1.9	.50	195.0	.9	5.5	1.89
	200.0	2.3	2.3	.55	200.0	1.9	1.9	.50	200.0	.9	5.3	1.73
	205.0	2.0	2.0	.55	205.0	1.9	1.9	.50	205.0	.9	4.9	1.60
	210.0	2.3	2.3	.56	210.0	1.9	1.9	.50	210.0	.9	4.6	1.46
	215.0	2.0	2.0	.55	215.0	1.9	1.9	.50	215.0	.9	4.4	1.37
	220.0	1.9	1.9	.58	220.0	1.9	1.9	.50	220.0	1.0	4.2	1.30
	225.0	1.8	1.8	.53	225.0	1.9	1.9	.50	225.0	1.0	4.1	1.26
	230.0	1.7	1.7	.53	230.0	1.9	1.9	.50	230.0	1.1	3.9	1.20
	235.0	1.7	1.7	.53	235.0	1.9	1.9	.50	235.0	1.2	3.8	1.16
	240.0	1.8	1.8	.58	240.0	1.9	1.9	.50	240.0	1.2	3.7	1.11
					245.0	1.9	1.9	.50	245.0	1.3	3.5	1.05
					250.0	1.9	1.9	.50	250.0	1.3	3.3	1.01
					255.0	1.9	1.9	.50	255.0	1.5	3.3	.93
					260.0	1.9	1.9	.50	260.0	1.6	3.2	.77
					265.0	1.9	1.9	.50	265.0	1.5	2.7	.68

270.0	1.9	1.9	.59
275.0	1.9	1.9	.59
280.0	1.9	1.9	.59
285.0	1.9	1.9	.59
290.0	1.9	1.9	.59
295.0	1.9	1.9	.59
300.0	1.9	1.9	.59
305.0	1.9	1.9	.59
310.0	1.9	1.9	.59
315.0	1.9	1.9	.59
320.0	1.9	1.9	.59
325.0	1.9	1.9	.59
330.0	1.9	1.9	.59
335.0	1.9	1.9	.59
340.0	1.9	1.9	.59
345.0	1.9	1.9	.59
350.0	1.9	1.9	.59
355.0	1.9	1.9	.59
360.0	1.9	1.9	.59

270.0	1.9	2.2	.61
275.0	1.9	2.1	.58
280.0	1.9	2.0	.57
285.0	1.7	2.0	.56
290.0	1.7	1.9	.55
295.0	1.8	1.9	.55
300.0	1.8	1.9	.59
305.0	1.9	1.9	.59
310.0	1.9	1.9	.59
315.0	1.9	1.9	.59
320.0	1.9	1.9	.59
325.0	1.9	1.9	.59
330.0	1.9	1.9	.59
335.0	1.9	1.9	.59
340.0	1.9	1.9	.59
345.0	1.9	1.9	.59
350.0	1.9	1.9	.59
355.0	1.9	1.9	.59
360.0	1.9	1.9	.59
365.0	1.9	1.9	.59
370.0	1.9	1.9	.59
375.0	1.9	1.9	.59
380.0	1.9	1.9	.59
385.0	1.9	1.9	.59
390.0	1.9	1.9	.59
395.0	1.9	1.9	.59
400.0	1.9	1.9	.59
405.0	1.9	1.9	.59
410.0	1.9	1.9	.59
415.0	1.9	1.9	.59
420.0	1.9	1.9	.59
425.0	1.9	1.9	.59
430.0	1.9	1.9	.59
435.0	1.9	1.9	.59
440.0	1.9	1.9	.59
445.0	1.9	1.9	.59
450.0	1.9	1.9	.59
455.0	1.9	1.9	.59
460.0	1.9	1.9	.59
465.0	1.9	1.9	.59
470.0	1.9	1.9	.59
475.0	1.9	1.9	.59
480.0	1.9	1.9	.59

STORM + COMBINED SEWER MODEL EVALUATION
HYPOTHETICAL PIPE NETWORK

CALCULATION NO. 7652
03.07.1974

RIJ	RAIN SM. 2				RAIN SM. 3				RAIN SM. 4			
	T	QDU	QU	HU	T	QDU	QU	HU	T	QDU	QU	HU
	.0	1.9	1.9	.41	.0	1.9	1.9	.41	.0	1.9	1.9	.41
	5.0	1.9	1.9	.42	5.0	1.8	1.8	.41	5.0	1.8	1.8	.41
	10.0	1.9	1.9	.42	10.0	1.9	1.9	.43	10.0	2.0	2.0	.42
	15.0	2.1	2.2	.46	15.0	2.1	2.3	.46	15.0	2.1	2.1	.43
	20.0	2.9	3.8	.58	20.0	2.4	3.0	.52	20.0	1.9	2.1	.44
	25.0	3.9	6.7	.78	25.0	2.7	4.1	.63	25.0	2.4	2.9	.51
	30.0	3.1	10.6	.98	30.0	2.7	5.5	.76	30.0	2.4	3.5	.56
	35.0	2.7	13.2	1.14	35.0	2.6	7.1	.83	35.0	2.5	4.2	.61
	40.0	2.3	15.2	1.28	40.0	2.5	8.6	.96	40.0	2.4	5.0	.67
	45.0	2.1	16.2	1.33	45.0	2.4	10.2	.99	45.0	2.4	5.8	.73
	50.0	1.8	18.5	1.29	50.0	2.2	11.7	1.07	50.0	2.3	6.5	.77
	55.0	1.6	12.6	1.14	55.0	2.2	13.2	1.15	55.0	2.2	7.3	.82
	60.0	1.5	10.2	1.01	60.0	2.1	14.6	1.24	60.0	2.2	8.1	.87
	65.0	1.4	7.9	.87	65.0	2.0	15.9	1.31	65.0	2.1	8.9	.91
	70.0	1.3	5.9	.75	70.0	2.0	16.7	1.35	70.0	2.1	9.6	.95
	75.0	1.2	4.7	.65	75.0	1.9	16.9	1.37	75.0	2.0	10.3	.99
	80.0	1.1	3.2	.55	80.0	1.9	16.5	1.34	80.0	2.0	11.0	1.03
	85.0	1.1	2.9	.51	85.0	1.8	15.4	1.29	85.0	2.0	11.7	1.07
	90.0	1.1	2.3	.45	90.0	1.8	14.3	1.22	90.0	2.0	12.4	1.11
	95.0	1.0	2.0	.42	95.0	1.7	13.1	1.15	95.0	2.0	13.2	1.15
	100.0	1.0	1.9	.41	100.0	1.7	11.7	1.07	100.0	2.0	13.9	1.19
	105.0	1.7	1.9	.41	105.0	1.7	10.3	1.00	105.0	2.0	14.6	1.23
	110.0	1.8	1.9	.41	110.0	1.6	9.1	.93	110.0	2.0	15.3	1.27
	115.0	1.9	1.9	.41	115.0	1.6	7.7	.85	115.0	1.9	16.0	1.31
	120.0	1.9	1.9	.41	120.0	1.5	6.4	.77	120.0	1.9	16.7	1.35
	125.0	1.9	1.9	.41	125.0	1.4	5.3	.70	125.0	1.9	17.3	1.39
	130.0	1.9	1.9	.41	130.0	1.4	4.4	.63	130.0	1.9	17.7	1.50
	135.0	1.9	1.9	.41	135.0	1.4	3.6	.57	135.0	1.9	17.5	1.41
	140.0	1.9	1.9	.41	140.0	1.4	3.0	.51	140.0	1.8	17.4	2.01
	145.0	1.9	1.9	.41	145.0	1.4	2.5	.47	145.0	1.9	17.3	1.93
	150.0	1.9	1.9	.41	150.0	1.4	2.2	.44	150.0	1.9	17.0	1.61
	155.0	1.9	1.9	.41	155.0	1.5	2.0	.43	155.0	1.8	16.0	1.38
	160.0	1.9	1.9	.41	160.0	1.6	2.0	.42	160.0	1.8	15.3	1.27
	165.0	1.9	1.9	.41	165.0	1.7	1.9	.41	165.0	1.8	14.5	1.23
	170.0	1.9	1.9	.41	170.0	1.8	1.9	.41	170.0	1.8	13.8	1.19
	175.0	1.9	1.9	.41	175.0	1.8	1.9	.41	175.0	1.8	13.1	1.15
	180.0	1.9	1.9	.41	180.0	1.8	1.9	.41	180.0	1.8	12.4	1.11
	185.0	1.9	1.9	.41	185.0	1.9	1.9	.41	185.0	1.8	11.7	1.07
	190.0	1.9	1.9	.41	190.0	1.9	1.9	.41	190.0	1.8	11.0	1.04
	195.0	1.9	1.9	.41	195.0	1.9	1.9	.41	195.0	1.8	10.4	1.00
	200.0	1.9	1.9	.41	200.0	1.9	1.9	.41	200.0	1.7	9.8	.96
	205.0	1.9	1.9	.41	205.0	1.9	1.9	.41	205.0	1.7	9.3	.92
	210.0	1.9	1.9	.41	210.0	1.9	1.9	.41	210.0	1.7	8.8	.86
	215.0	1.9	1.9	.41	215.0	1.9	1.9	.41	215.0	1.6	6.9	.80
	220.0	1.8	1.8	.41	220.0	1.9	1.9	.41	220.0	1.6	6.1	.75
	225.0	1.8	1.8	.41	225.0	1.9	1.9	.41	225.0	1.7	5.7	.72
	230.0	1.8	1.8	.41	230.0	1.9	1.9	.41	230.0	1.6	5.0	.68
	235.0	1.9	1.9	.41	235.0	1.9	1.9	.41	235.0	1.7	4.7	.65
	240.0	1.9	1.9	.41	240.0	1.9	1.9	.41	240.0	1.6	4.1	.60
					245.0	1.9	1.9	.41	245.0	1.5	3.5	.57
					250.0	1.9	1.9	.41	250.0	1.5	3.2	.54
					255.0	1.9	1.9	.41	255.0	1.5	2.8	.53
					260.0	1.9	1.9	.41	260.0	1.5	2.5	.47
					265.0	1.9	1.9	.41	265.0	1.5	2.3	.45

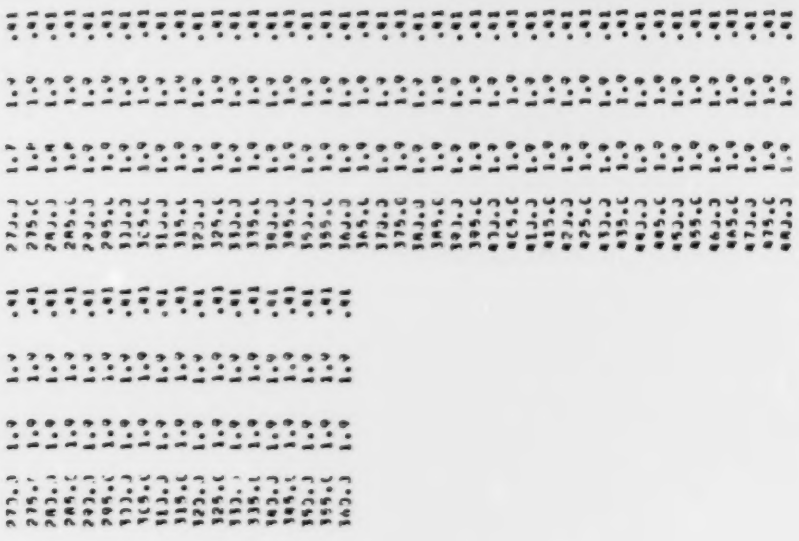
105

270.0	1.9	1.9	.01	270.0	1.6	2.1	.03
275.0	1.9	1.9	.01	275.0	1.6	2.0	.02
280.0	1.9	1.9	.01	280.0	1.7	1.9	.01
285.0	1.9	1.9	.01	285.0	1.8	1.9	.01
290.0	1.9	1.9	.01	290.0	1.8	1.9	.01
295.0	1.9	1.9	.01	295.0	1.8	1.9	.01
300.0	1.9	1.9	.01	300.0	1.9	1.9	.01
305.0	1.9	1.9	.01	305.0	1.9	1.9	.01
310.0	1.9	1.9	.01	310.0	1.9	1.9	.01
315.0	1.9	1.9	.01	315.0	1.9	1.9	.01
320.0	1.9	1.9	.01	320.0	1.9	1.9	.01
325.0	1.9	1.9	.01	325.0	1.9	1.9	.01
330.0	1.9	1.9	.01	330.0	1.9	1.9	.01
335.0	1.9	1.9	.01	335.0	1.9	1.9	.01
340.0	1.9	1.9	.01	340.0	1.9	1.9	.01
345.0	1.9	1.9	.01	345.0	1.9	1.9	.01
350.0	1.9	1.9	.01	350.0	1.9	1.9	.01
355.0	1.9	1.9	.01	355.0	1.9	1.9	.01
360.0	1.9	1.9	.01	360.0	1.9	1.9	.01
				365.0	1.9	1.9	.01
				370.0	1.9	1.9	.01
				375.0	1.9	1.9	.01
				380.0	1.9	1.9	.01
				385.0	1.9	1.9	.01
				390.0	1.9	1.9	.01
				395.0	1.9	1.9	.01
				400.0	1.9	1.9	.01
				405.0	1.9	1.9	.01
				410.0	1.9	1.9	.01
				415.0	1.9	1.9	.01
				420.0	1.9	1.9	.01
				425.0	1.9	1.9	.01
				430.0	1.9	1.9	.01
				435.0	1.9	1.9	.01
				440.0	1.9	1.9	.01
				445.0	1.9	1.9	.01
				450.0	1.9	1.9	.01
				455.0	1.9	1.9	.01
				460.0	1.9	1.9	.01
				465.0	1.9	1.9	.01
				470.0	1.9	1.9	.01
				475.0	1.9	1.9	.01
				480.0	1.9	1.9	.01

STORM - COMBINED SEWER MODEL EVALUATION
HYPOTHETICAL PIPE NETWORK

CALCULATION NO. 9652
11.27.1974

	RAIN SM. 2			RAIN SM. 3			RAIN SM. 4		
	T	QDU	QU	HU	T	QDU	QU	HU	T	QDU	QU	HU
	.0	1.9	1.9	.41	.0	1.9	1.9	.41	.0	1.9	1.9	.41
	5.0	1.9	1.9	.41	5.0	1.9	1.9	.41	5.0	1.9	1.9	.41
	10.0	2.1	2.2	.44	10.0	2.1	2.1	.44	10.0	2.1	2.1	.43
	15.0	2.6	3.4	.55	15.0	2.3	2.8	.56	15.0	1.9	2.1	.44
	20.0	2.9	5.9	.76	20.0	2.5	3.8	.58	20.0	2.1	2.7	.49
	25.0	2.8	9.3	.94	25.0	2.5	5.2	.69	25.0	2.4	3.5	.56
	30.0	2.5	12.9	1.11	30.0	2.5	6.4	.79	30.0	2.5	4.2	.61
	35.0	2.2	15.2	1.27	35.0	2.3	8.3	.88	35.0	2.3	4.9	.66
	40.0	2.0	16.3	1.34	40.0	2.2	9.8	.97	40.0	2.2	5.7	.72
	45.0	1.9	15.8	1.30	45.0	2.1	11.3	1.05	45.0	2.2	6.5	.77
	50.0	1.7	13.2	1.18	50.0	2.1	12.8	1.13	50.0	2.1	7.1	.81
	55.0	1.6	10.9	1.04	55.0	2.0	14.2	1.21	55.0	2.1	7.9	.86
	60.0	1.5	8.3	.91	60.0	2.0	15.7	1.29	60.0	2.0	8.7	.90
	65.0	1.4	6.2	.77	65.0	2.0	16.7	1.36	65.0	2.0	9.4	.94
	70.0	1.3	4.3	.64	70.0	1.9	17.1	1.38	70.0	2.0	10.1	.98
	75.0	1.1	3.0	.52	75.0	1.9	16.9	1.37	75.0	2.0	10.8	1.02
	80.0	1.1	2.5	.47	80.0	1.8	15.9	1.31	80.0	2.0	11.5	1.06
	85.0	1.0	2.1	.43	85.0	1.8	14.7	1.24	85.0	2.0	12.3	1.10
	90.0	1.0	2.0	.42	90.0	1.8	13.8	1.17	90.0	2.0	13.0	1.14
	95.0	1.0	1.9	.41	95.0	1.7	12.1	1.10	95.0	1.9	13.7	1.18
	100.0	1.0	1.9	.41	100.0	1.7	10.7	1.02	100.0	1.9	14.4	1.22
	105.0	1.0	1.9	.41	105.0	1.7	9.3	.98	105.0	1.9	15.1	1.26
	110.0	1.0	1.9	.41	110.0	1.7	8.1	.87	110.0	1.9	15.8	1.30
	115.0	1.0	1.9	.41	115.0	1.6	6.7	.78	115.0	1.9	16.5	1.34
	120.0	1.0	1.9	.41	120.0	1.5	5.5	.70	120.0	1.9	17.2	1.39
	125.0	1.0	1.9	.41	125.0	1.5	4.3	.62	125.0	1.9	17.7	1.42
	130.0	1.0	1.9	.41	130.0	1.4	3.5	.56	130.0	1.9	18.3	1.45
	135.0	1.0	1.9	.41	135.0	1.4	2.8	.50	135.0	1.9	17.8	1.42
	140.0	1.0	1.9	.41	140.0	1.5	2.4	.46	140.0	1.9	17.4	1.40
	145.0	1.0	1.9	.41	145.0	1.5	2.1	.43	145.0	1.8	16.8	1.36
	150.0	1.0	1.9	.41	150.0	1.6	2.0	.42	150.0	1.8	16.1	1.32
	155.0	1.0	1.9	.41	155.0	1.7	1.9	.41	155.0	1.8	15.4	1.28
	160.0	1.0	1.9	.41	160.0	1.8	1.9	.41	160.0	1.8	14.7	1.24
	165.0	1.0	1.9	.41	165.0	1.8	1.9	.41	165.0	1.8	14.0	1.20
	170.0	1.0	1.9	.41	170.0	1.8	1.9	.41	170.0	1.8	13.3	1.16
	175.0	1.0	1.9	.41	175.0	1.9	1.9	.41	175.0	1.8	12.6	1.12
	180.0	1.0	1.9	.41	180.0	1.9	1.9	.41	180.0	1.8	11.9	1.08
	185.0	1.0	1.9	.41	185.0	1.9	1.9	.41	185.0	1.8	11.2	1.05
	190.0	1.0	1.9	.41	190.0	1.9	1.9	.41	190.0	1.8	10.5	1.01
	195.0	1.0	1.9	.41	195.0	1.9	1.9	.41	195.0	1.8	9.8	.97
	200.0	1.0	1.9	.41	200.0	1.9	1.9	.41	200.0	1.8	9.1	.93
	205.0	1.0	1.9	.41	205.0	1.9	1.9	.41	205.0	1.7	8.3	.88
	210.0	1.0	1.9	.41	210.0	1.9	1.9	.41	210.0	1.7	7.2	.81
	215.0	1.0	1.9	.41	215.0	1.9	1.9	.41	215.0	1.6	6.2	.75
	220.0	1.0	1.9	.41	220.0	1.9	1.9	.41	220.0	1.7	5.5	.71
	225.0	1.0	1.9	.41	225.0	1.9	1.9	.41	225.0	1.8	5.3	.69
	230.0	1.0	1.9	.41	230.0	1.9	1.9	.41	230.0	1.7	4.6	.65
	235.0	1.0	1.9	.41	235.0	1.9	1.9	.41	235.0	1.7	4.0	.62
	240.0	1.0	1.9	.41	240.0	1.9	1.9	.41	240.0	1.6	3.6	.56
					245.0	1.9	1.9	.41	245.0	1.5	3.1	.53
					250.0	1.9	1.9	.41	250.0	1.5	2.8	.50
					255.0	1.9	1.9	.41	255.0	1.6	2.4	.46
					260.0	1.9	1.9	.41	260.0	1.6	2.2	.44
					265.0	1.9	1.9	.41	265.0	1.7	2.0	.42



STORM + COMBINED SEWER MODEL EVALUATION
HYPOTHETICAL PIPE NETWORK

CALCULATION NO. 9652
03.07.1974

431

DATA SH. 2 T	QDU	QU	HU	DATA SH. 3 T	QDU	QU	HU	DATA SH. 4 T	QDU	QJ	HJ
.0	1.9	1.9	.81	.0	1.9	1.9	.81	.0	1.9	1.9	.81
5.J	1.9	1.9	.82	5.J	1.9	2.J	.82	5.J	1.9	1.9	.82
10.0	2.1	2.9	.51	10.0	2.1	2.6	.88	10.0	2.0	2.2	.85
15.J	2.7	5.8	.71	15.J	2.3	3.6	.57	15.J	2.J	2.5	.88
20.0	2.5	8.A	.90	20.0	2.3	5.0	.67	20.0	2.2	3.8	.55
25.J	2.3	11.7	1.J7	25.J	2.3	6.5	.77	25.J	2.2	4.1	.6J
30.0	2.1	14.A	1.23	30.0	2.2	8.L	.86	30.0	2.2	4.8	.66
35.J	2.1	16.7	1.3A	35.J	2.1	9.5	.95	35.J	2.1	5.A	.71
40.0	1.9	16.8	1.38	40.0	2.0	11.0	1.03	40.0	2.1	6.3	.76
45.J	1.8	18.3	1.22	45.J	2.J	12.8	1.11	45.J	2.J	7.1	.8J
50.0	1.7	11.6	1.0A	50.0	2.0	13.9	1.19	50.0	2.0	7.A	.85
55.J	1.A	9.1	.93	55.J	2.J	15.3	1.27	55.J	2.J	A.5	.A9
60.0	1.5	6.8	.7A	60.0	1.9	16.7	1.35	60.0	2.0	9.2	.93
65.J	1.A	4.A	.63	65.J	1.9	17.A	1.AJ	65.J	2.J	17.J	.9A
70.0	1.3	2.9	.51	70.0	1.9	17.3	1.39	70.0	1.9	10.7	1.01
75.J	1.A	2.1	.AA	75.J	1.A	16.A	1.3A	75.J	1.9	11.A	1.J5
80.0	1.A	2.0	.82	80.0	1.A	15.2	1.27	80.0	1.9	12.1	1.09
85.J	1.7	1.9	.81	85.J	1.1	13.A	1.19	85.J	1.9	12.A	1.13
90.0	1.A	1.9	.81	90.0	1.A	12.A	1.11	90.0	1.9	13.5	1.17
95.J	1.9	1.9	.81	95.J	1.A	11.J	1.J4	95.J	1.9	14.2	1.21
100.0	1.9	1.9	.81	100.0	1.A	9.7	.96	100.0	1.9	14.9	1.25
105.J	1.9	1.9	.81	105.J	1.7	8.3	.A8	105.J	1.9	15.A	1.29
110.0	1.9	1.9	.81	110.0	1.7	7.0	.AC	110.0	1.9	16.3	1.33
115.J	1.9	1.9	.81	115.J	1.6	5.7	.72	115.J	1.9	17.J	1.3A
120.0	1.9	1.9	.81	120.0	1.6	A.A	.63	120.0	1.9	17.7	1.42
125.J	1.9	1.9	.81	125.J	1.5	3.3	.5A	125.J	1.9	18.1	1.AA
130.0	1.9	1.9	.81	130.0	1.5	2.7	.AB	130.0	1.9	18.L	1.AA
135.J	1.9	1.9	.81	135.J	1.6	2.2	.AA	135.J	1.9	17.6	1.A1
140.0	1.9	1.9	.81	140.0	1.7	2.0	.A2	140.0	1.9	17.0	1.37
145.J	1.9	1.9	.81	145.J	1.7	1.9	.81	145.J	1.A	16.3	1.33
150.0	1.9	1.9	.81	150.0	1.A	1.9	.81	150.0	1.A	15.6	1.29
155.J	1.9	1.9	.81	155.J	1.A	1.9	.81	155.J	1.A	14.9	1.25
160.0	1.9	1.9	.81	160.0	1.9	1.9	.81	160.0	1.A	14.2	1.21
165.J	1.9	1.9	.81	165.J	1.9	1.9	.81	165.J	1.A	13.5	1.17
170.0	1.9	1.9	.81	170.0	1.9	1.9	.81	170.0	1.A	12.A	1.13
175.J	1.9	1.9	.81	175.J	1.9	1.9	.81	175.J	1.A	12.J	1.J9
180.0	1.9	1.9	.81	180.0	1.9	1.9	.81	180.0	1.A	11.A	1.06
185.J	1.9	1.9	.81	185.J	1.9	1.9	.81	185.J	1.A	10.7	1.02
190.0	1.9	1.9	.81	190.0	1.9	1.9	.81	190.0	1.A	10.0	.9A
195.J	1.9	1.9	.81	195.J	1.9	1.9	.81	195.J	1.A	9.3	.94
200.0	1.9	1.9	.81	200.0	1.9	1.9	.81	200.0	1.A	A.6	.90
205.J	1.9	1.9	.81	205.J	1.9	1.9	.81	205.J	1.A	7.A	.A3
210.0	1.9	1.9	.81	210.0	1.9	1.9	.81	210.0	1.7	A.2	.75
215.J	1.9	1.9	.81	215.J	1.9	1.9	.81	215.J	1.7	5.A	.70
220.0	1.9	1.9	.81	220.0	1.9	1.9	.81	220.0	1.A	5.1	.67
225.J	1.9	1.9	.81	225.J	1.9	1.9	.81	225.J	1.A	A.9	.66
230.0	1.9	1.9	.81	230.0	1.9	1.9	.81	230.0	1.7	A.3	.62
235.J	1.9	1.9	.81	235.J	1.9	1.9	.81	235.J	1.A	3.9	.59
240.0	1.9	1.9	.81	240.0	1.9	1.9	.81	240.0	1.6	3.L	.52
				245.J	1.9	1.9	.81	245.J	1.6	2.7	.A9
				250.0	1.9	1.9	.81	250.0	1.6	2.3	.85
				255.J	1.9	1.9	.81	255.J	1.7	2.1	.83
				260.0	1.9	1.9	.81	260.0	1.7	2.0	.82
				265.J	1.9	1.9	.81	265.J	1.A	1.9	.81

270.0	1.9	1.9	.41	270.0	1.9	1.9	.41
275.0	1.9	1.9	.41	275.0	1.9	1.9	.41
280.0	1.9	1.9	.41	280.0	1.9	1.9	.41
285.0	1.9	1.9	.41	285.0	1.9	1.9	.41
290.0	1.9	1.9	.41	290.0	1.9	1.9	.41
295.0	1.9	1.9	.41	295.0	1.9	1.9	.41
300.0	1.9	1.9	.41	300.0	1.9	1.9	.41
305.0	1.9	1.9	.41	305.0	1.9	1.9	.41
310.0	1.9	1.9	.41	310.0	1.9	1.9	.41
315.0	1.9	1.9	.41	315.0	1.9	1.9	.41
320.0	1.9	1.9	.41	320.0	1.9	1.9	.41
325.0	1.9	1.9	.41	325.0	1.9	1.9	.41
330.0	1.9	1.9	.41	330.0	1.9	1.9	.41
335.0	1.9	1.9	.41	335.0	1.9	1.9	.41
340.0	1.9	1.9	.41	340.0	1.9	1.9	.41
345.0	1.9	1.9	.41	345.0	1.9	1.9	.41
350.0	1.9	1.9	.41	350.0	1.9	1.9	.41
355.0	1.9	1.9	.41	355.0	1.9	1.9	.41
360.0	1.9	1.9	.41	360.0	1.9	1.9	.41
				365.0	1.9	1.9	.41
				370.0	1.9	1.9	.41
				375.0	1.9	1.9	.41
				380.0	1.9	1.9	.41
				385.0	1.9	1.9	.41
				390.0	1.9	1.9	.41
				395.0	1.9	1.9	.41
				400.0	1.9	1.9	.41
				405.0	1.9	1.9	.41
				410.0	1.9	1.9	.41
				415.0	1.9	1.9	.41
				420.0	1.9	1.9	.41
				425.0	1.9	1.9	.41
				430.0	1.9	1.9	.41
				435.0	1.9	1.9	.41
				440.0	1.9	1.9	.41
				445.0	1.9	1.9	.41
				450.0	1.9	1.9	.41
				455.0	1.9	1.9	.41
				460.0	1.9	1.9	.41
				465.0	1.9	1.9	.41
				470.0	1.9	1.9	.41
				475.0	1.9	1.9	.41
				480.0	1.9	1.9	.41

STORM + COMBINED SEWER POOL EVALUATION
HYPOTHETICAL PIPE NETWORK

CALCULATION NO. 9652
11.17.1974

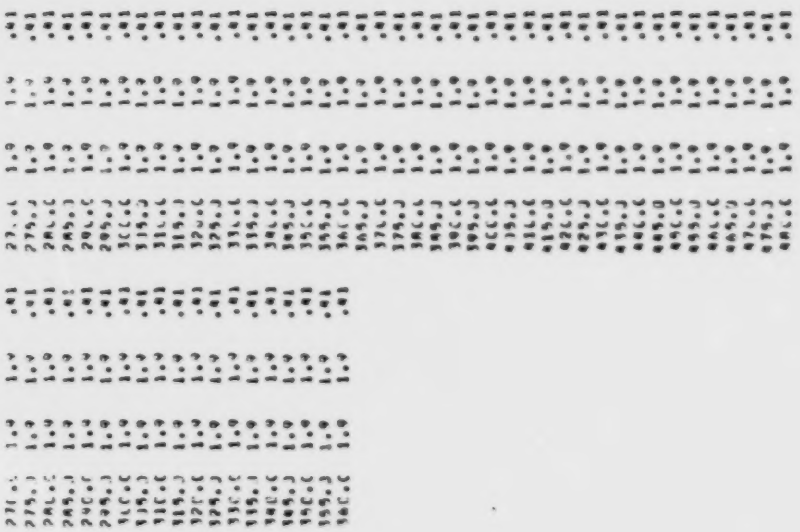
RAD	RAIN SH. 2				RAIN SH. 3				RAIN SH. 4			
	T	QDU	QU	HU	T	QDU	QU	HU	T	QDU	QU	HU
	.0	1.9	1.9	.41	.0	1.8	1.9	.41	.0	1.9	1.9	.41
	5.0	2.0	2.5	.87	5.0	2.0	2.3	.46	5.0	1.9	2.1	.43
	10.0	2.3	5.0	.67	10.0	2.1	3.4	.55	10.0	2.0	2.4	.48
	15.0	2.2	8.0	.86	15.0	2.1	4.8	.66	15.0	2.0	3.2	.58
	20.0	2.1	11.0	1.03	20.0	2.1	6.3	.76	20.0	2.0	4.1	.69
	25.0	2.0	13.9	1.19	25.0	2.0	7.8	.85	25.0	2.0	4.8	.65
	30.0	2.0	16.7	1.35	30.0	2.0	9.2	.93	30.0	2.0	5.5	.73
	35.0	1.9	17.3	1.39	35.0	2.0	10.6	1.01	35.0	2.0	6.2	.75
	40.0	1.8	15.2	1.27	40.0	1.9	12.1	1.09	40.0	1.9	6.9	.80
	45.0	1.8	12.4	1.12	45.0	1.9	13.5	1.17	45.0	1.9	7.6	.88
	50.0	1.7	9.7	.96	50.0	1.9	14.9	1.25	50.0	1.9	8.3	.88
	55.0	1.7	7.0	.80	55.0	1.9	16.3	1.33	55.0	1.9	9.1	.92
	60.0	1.6	4.8	.63	60.0	1.9	17.7	1.42	60.0	1.9	9.8	.97
	65.0	1.5	2.6	.49	65.0	1.9	17.8	1.42	65.0	1.9	10.5	1.01
	70.0	1.6	2.3	.42	70.0	1.9	16.9	1.37	70.0	1.9	11.2	1.04
	75.0	1.8	1.9	.41	75.0	1.8	15.1	1.29	75.0	1.9	11.9	1.08
	80.0	1.9	1.9	.41	80.0	1.8	14.2	1.21	80.0	1.8	12.6	1.12
	85.0	1.9	1.9	.41	85.0	1.8	12.8	1.14	85.0	1.9	13.3	1.16
	90.0	1.9	1.9	.41	90.0	1.8	11.4	1.06	90.0	1.9	14.0	1.20
	95.0	1.9	1.9	.41	95.0	1.8	10.1	.98	95.0	1.9	14.7	1.24
	100.0	1.9	1.9	.41	100.0	1.8	8.6	.93	100.0	1.9	15.4	1.28
	105.0	1.9	1.9	.41	105.0	1.8	7.2	.82	105.0	1.9	16.1	1.32
	110.0	1.9	1.9	.41	110.0	1.8	5.9	.73	110.0	1.9	16.8	1.36
	115.0	1.9	1.9	.41	115.0	1.7	4.5	.68	115.0	1.9	17.5	1.41
	120.0	1.9	1.9	.41	120.0	1.7	3.2	.58	120.0	1.9	18.2	1.45
	125.0	1.9	1.9	.41	125.0	1.6	2.0	.46	125.0	1.9	18.3	1.45
	130.0	1.9	1.9	.41	130.0	1.7	2.1	.43	130.0	1.9	17.8	1.43
	135.0	1.9	1.9	.41	135.0	1.8	1.9	.41	135.0	1.9	17.2	1.39
	140.0	1.9	1.9	.41	140.0	1.8	1.9	.41	140.0	1.9	16.5	1.34
	145.0	1.9	1.9	.41	145.0	1.9	1.9	.41	145.0	1.9	15.8	1.30
	150.0	1.9	1.9	.41	150.0	1.9	1.9	.41	150.0	1.9	15.1	1.26
	155.0	1.9	1.9	.41	155.0	1.9	1.9	.41	155.0	1.9	14.4	1.22
	160.0	1.9	1.9	.41	160.0	1.9	1.9	.41	160.0	1.8	13.7	1.18
	165.0	1.9	1.9	.41	165.0	1.9	1.9	.41	165.0	1.8	13.0	1.14
	170.0	1.9	1.9	.41	170.0	1.9	1.9	.41	170.0	1.8	12.2	1.10
	175.0	1.9	1.9	.41	175.0	1.9	1.9	.41	175.0	1.8	11.5	1.07
	180.0	1.9	1.9	.41	180.0	1.9	1.9	.41	180.0	1.9	10.9	1.03
	185.0	1.9	1.9	.41	185.0	1.9	1.9	.41	185.0	1.8	10.2	.99
	190.0	1.9	1.9	.41	190.0	1.9	1.9	.41	190.0	1.8	9.5	.95
	195.0	1.9	1.9	.41	195.0	1.9	1.9	.41	195.0	1.8	8.8	.91
	200.0	1.9	1.9	.41	200.0	1.9	1.9	.41	200.0	1.8	8.1	.87
	205.0	1.9	1.9	.41	205.0	1.9	1.9	.41	205.0	1.8	8.5	.77
	210.0	1.9	1.9	.41	210.0	1.9	1.9	.41	210.0	1.7	5.1	.68
	215.0	1.9	1.9	.41	215.0	1.9	1.9	.41	215.0	1.8	5.0	.67
	220.0	1.9	1.9	.41	220.0	1.9	1.9	.41	220.0	1.9	4.9	.66
	225.0	1.9	1.9	.41	225.0	1.9	1.9	.41	225.0	1.8	4.5	.63
	230.0	1.9	1.9	.41	230.0	1.9	1.9	.41	230.0	1.8	3.9	.59
	235.0	1.9	1.9	.41	235.0	1.9	1.9	.41	235.0	1.8	3.3	.54
	240.0	1.9	1.9	.41	240.0	1.9	1.9	.41	240.0	1.7	2.5	.48
					245.0	1.9	1.9	.41	245.0	1.7	2.2	.44
					250.0	1.9	1.9	.41	250.0	1.8	2.0	.42
					255.0	1.9	1.9	.41	255.0	1.8	1.9	.41
					260.0	1.9	1.9	.41	260.0	1.8	1.9	.41
					265.0	1.9	1.9	.41	265.0	1.9	1.9	.41

270.0	1.0	1.0	.01	270.0	1.0	1.0	.01
275.0	1.0	1.0	.01	275.0	1.0	1.0	.01
280.0	1.0	1.0	.01	280.0	1.0	1.0	.01
285.0	1.0	1.0	.01	285.0	1.0	1.0	.01
290.0	1.0	1.0	.01	290.0	1.0	1.0	.01
295.0	1.0	1.0	.01	295.0	1.0	1.0	.01
300.0	1.0	1.0	.01	300.0	1.0	1.0	.01
305.0	1.0	1.0	.01	305.0	1.0	1.0	.01
310.0	1.0	1.0	.01	310.0	1.0	1.0	.01
315.0	1.0	1.0	.01	315.0	1.0	1.0	.01
320.0	1.0	1.0	.01	320.0	1.0	1.0	.01
325.0	1.0	1.0	.01	325.0	1.0	1.0	.01
330.0	1.0	1.0	.01	330.0	1.0	1.0	.01
335.0	1.0	1.0	.01	335.0	1.0	1.0	.01
340.0	1.0	1.0	.01	340.0	1.0	1.0	.01
345.0	1.0	1.0	.01	345.0	1.0	1.0	.01
350.0	1.0	1.0	.01	350.0	1.0	1.0	.01
355.0	1.0	1.0	.01	355.0	1.0	1.0	.01
360.0	1.0	1.0	.01	360.0	1.0	1.0	.01
				365.0	1.0	1.0	.01
				370.0	1.0	1.0	.01
				375.0	1.0	1.0	.01
				380.0	1.0	1.0	.01
				385.0	1.0	1.0	.01
				390.0	1.0	1.0	.01
				395.0	1.0	1.0	.01
				400.0	1.0	1.0	.01
				405.0	1.0	1.0	.01
				410.0	1.0	1.0	.01
				415.0	1.0	1.0	.01
				420.0	1.0	1.0	.01
				425.0	1.0	1.0	.01
				430.0	1.0	1.0	.01
				435.0	1.0	1.0	.01
				440.0	1.0	1.0	.01
				445.0	1.0	1.0	.01
				450.0	1.0	1.0	.01
				455.0	1.0	1.0	.01
				460.0	1.0	1.0	.01
				465.0	1.0	1.0	.01
				470.0	1.0	1.0	.01
				475.0	1.0	1.0	.01
				480.0	1.0	1.0	.01

STORM + COMBINED SEWER MODEL EVALUATION
HYPOTHETICAL PIPE NETWORK

CALCULATION NO. 9652
03.07.1974

451	RAIN SM. 2 T	QDU	QU	HU	RAIN SM. 3 T	QDU	QU	HU	RAIN SM. 4 T	QDU	QU	HU
	.0	1.9	1.9	.81	.0	1.9	1.9	.81	.0	1.9	1.9	.81
	5.0	1.9	4.7	.85	5.0	1.9	3.3	.58	5.0	1.9	2.6	.88
	10.0	1.9	7.5	.83	10.0	1.9	4.7	.65	10.0	1.9	3.3	.58
	15.0	1.9	13.3	.99	15.0	1.9	6.1	.78	15.0	1.9	4.7	.59
	20.0	1.9	13.1	1.15	20.0	1.9	7.5	.83	20.0	1.9	4.7	.65
	25.0	1.9	15.9	1.31	25.0	1.9	8.9	.92	25.0	1.9	5.8	.73
	30.0	1.9	18.8	1.48	30.0	1.9	10.3	.99	30.0	1.9	6.1	.78
	35.0	1.9	18.3	1.32	35.0	1.9	11.7	1.07	35.0	1.9	6.8	.79
	40.0	1.9	13.2	1.16	40.0	1.9	13.1	1.15	40.0	1.9	7.5	.83
	45.0	1.9	13.3	1.00	45.0	1.9	14.5	1.23	45.0	1.9	8.2	.87
	50.0	1.9	7.5	.88	50.0	1.9	15.9	1.31	50.0	1.9	8.9	.92
	55.0	1.9	4.7	.85	55.0	1.9	17.4	1.40	55.0	1.9	9.6	.95
	60.0	1.9	1.9	.82	60.0	1.9	18.8	1.48	60.0	1.9	10.3	1.00
	65.0	1.9	1.9	.81	65.0	1.9	17.8	1.40	65.0	1.9	11.3	1.03
	70.0	1.9	1.9	.81	70.0	1.9	16.0	1.32	70.0	1.9	11.7	1.07
	75.0	1.9	1.9	.81	75.0	1.9	14.6	1.23	75.0	1.9	12.8	1.11
	80.0	1.9	1.9	.81	80.0	1.9	13.2	1.16	80.0	1.9	13.1	1.15
	85.0	1.9	1.9	.81	85.0	1.9	11.7	1.08	85.0	1.9	13.8	1.19
	90.0	1.9	1.9	.81	90.0	1.9	10.3	1.00	90.0	1.9	14.5	1.23
	95.0	1.9	1.9	.81	95.0	1.9	8.9	.92	95.0	1.9	15.2	1.27
	100.0	1.9	1.9	.81	100.0	1.9	7.5	.83	100.0	1.9	16.0	1.31
	105.0	1.9	1.9	.81	105.0	1.9	6.1	.75	105.0	1.9	16.7	1.35
	110.0	1.9	1.9	.81	110.0	1.9	4.7	.65	110.0	1.9	17.4	1.40
	115.0	1.9	1.9	.81	115.0	1.9	3.3	.58	115.0	1.9	18.1	1.44
	120.0	1.9	1.9	.81	120.0	1.9	1.9	.81	120.0	1.9	18.8	1.49
	125.0	1.9	1.9	.81	125.0	1.9	1.9	.81	125.0	1.9	18.1	1.44
	130.0	1.9	1.9	.81	130.0	1.9	1.9	.81	130.0	1.9	17.4	1.40
	135.0	1.9	1.9	.81	135.0	1.9	1.9	.81	135.0	1.9	16.7	1.36
	140.0	1.9	1.9	.81	140.0	1.9	1.9	.81	140.0	1.9	16.0	1.31
	145.0	1.9	1.9	.81	145.0	1.9	1.9	.81	145.0	1.9	15.3	1.27
	150.0	1.9	1.9	.81	150.0	1.9	1.9	.81	150.0	1.9	14.6	1.23
	155.0	1.9	1.9	.81	155.0	1.9	1.9	.81	155.0	1.9	13.8	1.19
	160.0	1.9	1.9	.81	160.0	1.9	1.9	.81	160.0	1.9	13.1	1.15
	165.0	1.9	1.9	.81	165.0	1.9	1.9	.81	165.0	1.9	12.4	1.12
	170.0	1.9	1.9	.81	170.0	1.9	1.9	.81	170.0	1.9	11.7	1.08
	175.0	1.9	1.9	.81	175.0	1.9	1.9	.81	175.0	1.9	11.0	1.04
	180.0	1.9	1.9	.81	180.0	1.9	1.9	.81	180.0	1.9	10.3	1.00
	185.0	1.9	1.9	.81	185.0	1.9	1.9	.81	185.0	1.9	9.6	.96
	190.0	1.9	1.9	.81	190.0	1.9	1.9	.81	190.0	1.9	8.9	.92
	195.0	1.9	1.9	.81	195.0	1.9	1.9	.81	195.0	1.9	8.2	.87
	200.0	1.9	1.9	.81	200.0	1.9	1.9	.81	200.0	1.9	7.5	.83
	205.0	1.9	1.9	.81	205.0	1.9	1.9	.81	205.0	1.9	6.8	.84
	210.0	1.9	1.9	.81	210.0	1.9	1.9	.81	210.0	1.9	6.1	.80
	215.0	1.9	1.9	.81	215.0	1.9	1.9	.81	215.0	1.9	5.4	.75
	220.0	1.9	1.9	.81	220.0	1.9	1.9	.81	220.0	1.9	4.7	.65
	225.0	1.9	1.9	.81	225.0	1.9	1.9	.81	225.0	1.9	4.1	.60
	230.0	1.9	1.9	.81	230.0	1.9	1.9	.81	230.0	1.9	3.3	.58
	235.0	1.9	1.9	.81	235.0	1.9	1.9	.81	235.0	1.9	2.6	.88
	240.0	1.9	1.9	.81	240.0	1.9	1.9	.81	240.0	1.9	1.9	.81
					245.0	1.9	1.9	.81	245.0	1.9	1.9	.81
					250.0	1.9	1.9	.81	250.0	1.9	1.9	.81
					255.0	1.9	1.9	.81	255.0	1.9	1.9	.81
					260.0	1.9	1.9	.81	260.0	1.9	1.9	.81
					265.0	1.9	1.9	.81	265.0	1.9	1.9	.81



STORM - COMBINED SEWER POOL EVALUATION
HYPOTHETICAL PIPE NETWORK

CALCULATION NO. 0051
13.12.1974

451 RECEIVING	RAIN SM. 2				RAIN SM. 3				RAIN SM. 4			
	T	QDU	QU	HU	T	QDU	QU	HU	T	QDU	QU	HU
	.0	1.9	1.9	.41	.0	1.9	1.9	.41	.0	1.9	1.9	.41
	5.0	1.9	4.7	.85	5.0	1.9	3.3	.58	5.0	1.9	2.6	.48
	10.0	1.9	7.5	.88	10.0	1.9	4.7	.65	10.0	1.9	3.3	.58
	15.0	1.9	13.3	1.28	15.0	1.9	6.1	.78	15.0	1.9	4.7	.80
	20.0	1.9	15.1	1.79	20.0	1.9	7.5	.88	20.0	1.9	6.7	.65
	25.0	1.9	16.1	2.29	25.0	1.9	8.9	1.38	25.0	1.9	5.8	.73
	30.0	1.9	18.8	2.91	30.0	1.9	10.3	1.78	30.0	1.9	6.1	.78
	35.0	1.9	16.3	2.51	35.0	1.9	11.7	1.93	35.0	1.9	6.8	.79
	40.0	1.9	13.1	1.77	40.0	1.9	13.1	1.79	40.0	1.9	7.5	.88
	45.0	1.9	10.3	1.29	45.0	1.9	10.5	2.11	45.0	1.9	8.2	.97
	50.0	1.9	7.5	.88	50.0	1.9	10.1	2.29	50.0	1.9	8.9	1.16
	55.0	1.9	4.7	.65	55.0	1.9	17.9	2.59	55.0	1.9	9.6	1.16
	60.0	1.9	1.9	.41	60.0	1.9	18.8	2.92	60.0	1.9	10.3	1.29
	65.0	1.9	1.9	.41	65.0	1.9	17.9	2.63	65.0	1.9	11.0	1.38
	70.0	1.9	1.9	.41	70.0	1.9	16.1	2.35	70.0	1.9	11.7	1.51
	75.0	1.9	1.9	.41	75.0	1.9	14.9	2.02	75.0	1.9	12.4	1.63
	80.0	1.9	1.9	.41	80.0	1.9	13.1	1.76	80.0	1.9	13.1	1.76
	85.0	1.9	1.9	.41	85.0	1.9	11.7	1.42	85.0	1.9	13.8	1.88
	90.0	1.9	1.9	.41	90.0	1.9	10.3	1.29	90.0	1.9	14.5	2.02
	95.0	1.9	1.9	.41	95.0	1.9	8.9	1.08	95.0	1.9	15.3	2.15
	100.0	1.9	1.9	.41	100.0	1.9	7.5	.99	100.0	1.9	16.0	2.29
	105.0	1.9	1.9	.41	105.0	1.9	6.1	.75	105.0	1.9	16.7	2.48
	110.0	1.9	1.9	.41	110.0	1.9	4.7	.65	110.0	1.9	17.4	2.59
	115.0	1.9	1.9	.41	115.0	1.9	3.3	.58	115.0	1.9	18.1	2.75
	120.0	1.9	1.9	.41	120.0	1.9	1.9	.41	120.0	1.9	18.8	2.92
	125.0	1.9	1.9	.41	125.0	1.9	1.9	.41	125.0	1.9	18.1	2.76
	130.0	1.9	1.9	.41	130.0	1.9	1.9	.41	130.0	1.9	17.4	2.60
	135.0	1.9	1.9	.41	135.0	1.9	1.9	.41	135.0	1.9	16.7	2.45
	140.0	1.9	1.9	.41	140.0	1.9	1.9	.41	140.0	1.9	16.0	2.30
	145.0	1.9	1.9	.41	145.0	1.9	1.9	.41	145.0	1.9	15.3	2.16
	150.0	1.9	1.9	.41	150.0	1.9	1.9	.41	150.0	1.9	14.5	2.02
	155.0	1.9	1.9	.41	155.0	1.9	1.9	.41	155.0	1.9	13.8	1.89
	160.0	1.9	1.9	.41	160.0	1.9	1.9	.41	160.0	1.9	13.1	1.76
	165.0	1.9	1.9	.41	165.0	1.9	1.9	.41	165.0	1.9	12.4	1.63
	170.0	1.9	1.9	.41	170.0	1.9	1.9	.41	170.0	1.9	11.7	1.51
	175.0	1.9	1.9	.41	175.0	1.9	1.9	.41	175.0	1.9	11.0	1.40
	180.0	1.9	1.9	.41	180.0	1.9	1.9	.41	180.0	1.9	10.3	1.29
	185.0	1.9	1.9	.41	185.0	1.9	1.9	.41	185.0	1.9	9.6	1.18
	190.0	1.9	1.9	.41	190.0	1.9	1.9	.41	190.0	1.9	8.9	1.08
	195.0	1.9	1.9	.41	195.0	1.9	1.9	.41	195.0	1.9	8.2	.98
	200.0	1.9	1.9	.41	200.0	1.9	1.9	.41	200.0	1.9	7.5	.89
	205.0	1.9	1.9	.41	205.0	1.9	1.9	.41	205.0	1.9	6.8	.66
	210.0	1.9	1.9	.41	210.0	1.9	1.9	.41	210.0	1.9	6.1	.61
	215.0	1.9	1.9	.41	215.0	1.9	1.9	.41	215.0	1.9	5.8	.76
	220.0	1.9	1.9	.41	220.0	1.9	1.9	.41	220.0	1.9	6.7	.65
	225.0	1.9	1.9	.41	225.0	1.9	1.9	.41	225.0	1.9	6.1	.60
	230.0	1.9	1.9	.41	230.0	1.9	1.9	.41	230.0	1.9	5.1	.58
	235.0	1.9	1.9	.41	235.0	1.9	1.9	.41	235.0	1.9	2.6	.51
	240.0	1.9	1.9	.41	240.0	1.9	1.9	.41	240.0	1.9	1.9	.43
					245.0	1.9	1.9	.41	245.0	1.9	1.9	.41
					250.0	1.9	1.9	.41	250.0	1.9	1.9	.41
					255.0	1.9	1.9	.41	255.0	1.9	1.9	.41
					260.0	1.9	1.9	.41	260.0	1.9	1.9	.41
					265.0	1.9	1.9	.41	265.0	1.9	1.9	.41

STORM + COMBINED SEWER MODEL EVALUATION
HYPOTHETICAL PIPE NETWORK

CALCULATION NO. 9652
03.07.1974

N	R	ARR	I..C	YR	II.CC	PR	I..C	LR	2.CC	PLE	.ACC	TAFLOW	RCI	OUTFLOW	RDD	BYPASS	A	P.AC.

RAIN SH. 2							RAIN SH. 3							RAIN SH. 4					
T	H	V	VR	VIN	VIR	T	H	V	VR	VIN	VIR	T	H	V	VR	VIN	VIR
.C	.58	5	5	5	5	.C	.58	5	5	5	C	.C	.58	5	5	5	0
5.J	.51	5	5	537	532	5.J	.51	5	5	521	515	5.J	.53	5	5	534	535
1C.C	.53	5	5	1082	1C7A	1C.C	.52	5	5	1C49	1C43	1C.C	.55	5	5	1095	1084
15.J	.52	5	5	1621	1614	15.J	.57	6	6	1665	1659	15.J	.57	6	5	1717	1712
2C.C	.66	7	6	2356	2350	20.C	.62	6	6	2379	2373	2C.C	.56	6	5	2367	2362
25.J	1.21	12	9	3379	3287	25.J	.65	9	7	3346	3337	25.J	.68	6	6	3347	3341
3C.C	1.65	16	9	5237	4899	3C.C	1.25	12	8	4663	4393	3C.C	.69	7	6	3873	3867
35.J	2.22	22	7	8737	5939	35.J	1.47	15	8	6312	5572	35.J	1.37	11	4	4892	4853
4C.C	3.CA	31	7	11598	7694	4C.C	1.67	17	7	8851	6A9A	4C.C	1.24	12	8	6123	5915
45.J	3.A1	38	6	15A6A	9719	45.J	1.88	19	6	11066	8222	45.J	1.39	14	7	7672	7351
5C.C	3.97	4C	5	2C292	11837	5C.C	2.2A	23	6	1413A	9757	5C.C	1.49	15	6	9396	8257
55.J	3.73	37	5	24725	13918	55.J	2.69	27	5	17947	11857	55.J	1.A0	14	6	11372	9879
6C.C	3.19	32	4	28A31	15836	6C.C	3.1A	32	5	21487	13333	6C.C	1.70	17	5	13588	10769
65.J	2.47	25	4	32321	17517	65.J	3.67	37	5	25767	15365	65.J	1.A3	1A	5	16353	12137
7C.C	1.AA	1A	3	3A7C5	1893C	7C.C	4.1C	41	5	3C362	1752A	7C.C	1.A9	19	5	18727	13464
75.J	1.5A	1A	3	36723	20185	75.J	4.44	44	5	35183	19787	75.J	2.3A	21	5	21574	14924
AC.C	1.2A	13	3	3A147	21297	AC.C	4.52	45	5	4CC51	22CAA	AC.C	2.27	23	5	24649	16464
A5.J	1.1A	12	3	39292	22316	A5.J	4.5A	44	5	44A63	24319	A5.J	2.49	24	5	27734	18322
9C.C	.77	A	3	4C25C	23278	9C.C	4.11	41	5	49857	26873	9C.C	2.70	27	5	31411	19747
95.J	.61	A	3	41943	24013	95.J	3.7A	3A	5	53812	28533	95.J	2.93	29	5	35135	21536
1CC.C	.5A	A	4	41AC4	24634	1CC.C	3.33	33	4	57793	3C457	1C0.C	3.23	32	5	39033	23477
1C5.J	.55	A	4	4219A	25228	1C5.J	2.A4	2A	4	61382	32212	1C5.J	3.4A	35	5	43142	25443
11C.C	.5A	5	5	427AC	25A1C	11C.C	2.43	24	4	64A24	33A1A	11C.C	3.73	37	5	47467	27453
115.J	.5A	5	5	43355	26385	115.J	1.97	23	3	67411	35231	115.J	3.99	43	5	51984	29623
12C.C	.5A	5	5	43921	26952	12C.C	1.74	17	3	69769	36542	12C.C	4.30	43	5	56720	31845
125.J	.5A	5	5	44AA8	27515	125.J	1.5A	1A	4	71417	37774	125.J	4.5A	4A	5	61A12	34137
13C.C	.55	5	5	45C4A	28C7A	13C.C	1.45	14	4	73251	3A938	13C.C	4.7A	4A	5	66674	36A64
135.J	.55	5	5	45A37	28A3A	135.J	1.29	13	4	74579	4CJ23	135.J	4.93	49	5	71431	38478
14C.C	.5A	5	5	461A9	292CC	14C.C	1.1A	12	4	75726	41C37	14C.C	5.01	50	5	77034	41292
145.J	.5A	5	5	46731	29762	145.J	.A5	9	4	76A77	41997	145.J	5.31	53	5	82225	43737
15C.C	.5A	5	5	47292	3C323	15C.C	.66	7	3	77456	4277A	15C.C	4.90	49	5	87354	46192
155.J	.55	5	5	47A53	3JA88	155.J	.6J	A	3	7A121	43443	155.J	4.71	47	5	92344	48A2A
16C.C	.55	5	5	48A1A	31445	16C.C	.5A	6	4	7A75A	44C79	16C.C	4.A7	45	5	97268	50695
165.J	.55	5	5	48A7A	32335	165.J	.5A	A	4	79393	4471A	165.J	4.21	42	5	101885	52842
17C.C	.55	A	A	49535	32565	17C.C	.5A	A	5	79A89	45312	17C.C	3.92	39	5	106365	55062
175.J	.5A	A	A	5J195	3312A	175.J	.52	5	5	A1529	45A53	175.J	3.A2	3A	5	111619	57318
18C.C	.55	A	A	5CA57	33AA7	18C.C	.55	5	5	A11C7	4643E	18C.C	3.32	33	4	114611	58941
185.J	.55	A	A	51218	34249	185.J	.53	5	5	A16A4	46987	185.J	3.35	33	4	118383	61771
19C.C	.55	A	A	517AC	34A1C	19C.C	.5A	5	5	A2232	47555	19C.C	2.7A	2A	4	121942	62544
195.J	.55	A	A	52381	35371	195.J	.5A	5	5	A2793	4A115	195.J	2.57	2A	4	125282	64154
2CC.C	.55	A	A	529C1	35932	2CC.C	.5A	5	5	A3357	4A6AE	2CC.C	2.3A	2A	4	128414	65742
2J5.J	.5A	A	A	53A61	36492	2J5.J	.5A	5	5	A3919	49242	2J5.J	2.13	21	4	131385	67224
21C.C	.5A	A	A	54C23	37C51	21C.C	.5A	5	5	A44AC	49AL3	21C.C	1.91	19	4	134082	68617
215.J	.5A	A	A	545A2	37613	215.J	.5A	5	5	A5J83	5J3A6	215.J	1.76	1A	4	136435	69824
22C.C	.5A	5	5	55183	38173	22C.C	.5A	5	5	A5AC4	5C92A	22C.C	1.64	1A	4	138477	71191
225.C	.52	5	5	55A9A	38729	225.C	.5A	5	5	A6166	51489	225.C	1.57	1A	4	140377	72423
23J.J	.51	5	5	5625J	392A1	23J.J	.5A	5	5	A6727	52151	23J.J	1.4A	15	4	142171	73A33
235.C	.51	5	5	56AEA	39A4C	235.C	.5A	5	5	A72A9	52612	235.C	1.41	14	4	143637	74744
24J.J	.52	5	5	57374	4J41A	24J.J	.5A	5	5	A785J	53173	24J.J	1.33	13	4	145121	75A94
						245.C	.5A	5	5	AA812	53735	245.C	1.22	12	4	146213	76A83
						25J.J	.5A	5	5	AA973	54226	25J.J	1.15	12	5	147292	77436

STORM + COMBINED SEWER MODEL EVALUATION
HYPOTHETICAL PIPE NETWORK

CALCULATION NO. 9652
11.17.1974

B 4 ARM 12.6 VR 61.00 HW 12.01 LW [illegible].00 HUE 13.333 INFLOW 451 OUTFLOW 451 BYPASS 452 M.NO.

RAIN SM. 2						RAIN SM. 3						RAIN SM. 4					
T	H	V	VD	VIN	VTR	T	H	V	VD	VIN	VTR	T	H	V	VD	VIN	VTR
.0	.41	5	5	5	0	.0	.41	5	5	5	0	.0	.41	5	5	5	0
5.0	.65	8	3	1232	1194	5.0	.54	7	4	991	984	5.0	.48	6	4	778	773
10.0	.88	11	3	3287	3238	10.0	.65	8	3	2399	2392	10.0	.54	7	4	1764	1757
15.0	1.28	16	3	6134	6118	15.0	.74	9	3	4232	4223	15.0	.60	7	4	2961	2954
20.0	1.79	22	3	9863	9841	20.0	.88	11	3	6489	6478	20.0	.65	8	3	4370	4363
25.0	2.29	29	3	14440	14412	25.0	1.04	14	3	9169	9157	25.0	.70	9	3	5991	5982
30.0	2.91	37	4	19864	19830	30.0	1.28	16	3	12263	12249	30.0	.74	9	3	7824	7815
35.0	2.31	29	3	24865	24839	35.0	1.51	19	3	15780	15764	35.0	.79	10	3	9868	9850
40.0	1.77	22	3	29018	28999	40.0	1.75	22	3	19721	19703	40.0	.88	11	3	12125	12116
45.0	1.29	16	3	32323	32311	45.0	2.02	25	3	24086	24066	45.0	.97	12	3	14593	14572
50.0	.89	11	3	34792	34784	50.0	2.29	29	3	28875	28850	50.0	1.08	14	3	17263	17250
55.0	.66	8	3	36413	36439	55.0	2.57	33	4	34087	34059	55.0	1.18	15	3	20145	20130
60.0	.41	5	5	37187	37185	60.0	2.92	37	4	39723	39690	60.0	1.29	16	3	23249	23233
65.0	.41	5	5	37748	37746	65.0	2.63	33	4	44936	44904	65.0	1.40	18	3	26555	26537
70.0	.41	5	5	38310	38308	70.0	2.30	29	3	49725	49699	70.0	1.51	19	3	30072	30054
75.0	.41	5	5	38871	38869	75.0	2.02	25	3	54097	54069	75.0	1.63	21	3	33801	33780
80.0	.41	5	5	39433	39431	80.0	1.76	22	3	58031	58015	80.0	1.76	22	3	37742	37721
85.0	.41	5	5	39994	39992	85.0	1.52	19	3	61548	61536	85.0	1.88	24	3	41895	41873
90.0	.41	5	5	40556	40554	90.0	1.29	16	3	64642	64632	90.0	2.02	25	3	46260	46237
95.0	.41	5	5	41117	41115	95.0	1.04	14	3	67322	67315	95.0	2.15	27	3	50837	50810
100.0	.41	5	5	41679	41677	100.0	.89	11	3	69579	69575	100.0	2.30	29	3	55626	55595
105.0	.41	5	5	42240	42238	105.0	.75	9	3	71412	71409	105.0	2.44	31	3	60625	60595
110.0	.41	5	5	42802	42800	110.0	.65	8	3	72821	72820	110.0	2.59	33	4	65839	65806
115.0	.41	5	5	43363	43361	115.0	.54	7	4	73836	73836	115.0	2.75	35	4	71263	71228
120.0	.41	5	5	43925	43923	120.0	.41	5	5	74368	74370	120.0	2.92	37	4	76899	76860
125.0	.41	5	5	44486	44484	125.0	.41	5	5	74929	74931	125.0	2.76	35	4	82324	82288
130.0	.41	5	5	45048	45045	130.0	.41	5	5	75491	75493	130.0	2.60	33	4	87536	87502
135.0	.41	5	5	45609	45607	135.0	.41	5	5	76052	76054	135.0	2.45	31	3	92537	92503
140.0	.41	5	5	46171	46168	140.0	.41	5	5	76614	76616	140.0	2.30	29	3	97326	97293
145.0	.41	5	5	46732	46730	145.0	.41	5	5	77175	77177	145.0	2.16	27	3	101903	101871
150.0	.41	5	5	47294	47291	150.0	.41	5	5	77737	77738	150.0	2.02	25	3	106267	106239
155.0	.41	5	5	47855	47853	155.0	.41	5	5	78298	78300	155.0	1.89	24	3	110421	110392
160.0	.41	5	5	48417	48414	160.0	.41	5	5	78860	78861	160.0	1.76	22	3	114362	114334
165.0	.41	5	5	48978	48975	165.0	.41	5	5	79422	79423	165.0	1.64	21	3	118091	118057
170.0	.41	5	5	49540	49537	170.0	.41	5	5	79983	79984	170.0	1.52	19	3	121608	121585
175.0	.41	5	5	50101	50098	175.0	. 1	5	5	80545	80546	175.0	1.40	18	3	124914	124890
180.0	.41	5	5	50663	50660	180.0	.41	5	5	81106	81107	180.0	1.29	16	3	128018	127996
185.0	.41	5	5	51224	51221	185.0	.41	5	5	81668	81669	185.0	1.18	15	3	130901	130879
190.0	.41	5	5	51786	51783	190.0	.41	5	5	82229	82230	190.0	1.08	14	3	133580	133559
195.0	.41	5	5	52347	52344	195.0	.41	5	5	82791	82792	195.0	.98	12	3	136039	136018
200.0	.41	5	5	52909	52906	200.0	.41	5	5	83352	83353	200.0	.89	11	3	138295	138276
205.0	.41	5	5	53470	53467	205.0	.41	5	5	83914	83915	205.0	.66	8	3	139735	139720
210.0	.41	5	5	54032	54029	210.0	.41	5	5	84475	84476	210.0	.61	8	3	140965	140950
215.0	.41	5	5	54593	54590	215.0	.41	5	5	85037	85038	215.0	.70	9	3	142585	142570
220.0	.41	5	5	55155	55152	220.0	.41	5	5	85598	85599	220.0	.65	8	3	143995	143980
225.0	.41	5	5	55716	55713	225.0	.41	5	5	86160	86161	225.0	.61	8	4	145192	145177
230.0	.41	5	5	56278	56274	230.0	.41	5	5	86721	86723	230.0	.54	7	4	146177	146163
235.0	.41	5	5	56839	56836	235.0	.41	5	5	87283	87284	235.0	.48	6	4	146951	146937
240.0	.41	5	5	57401	57397	240.0	.41	5	5	87844	87846	240.0	.41	5	5	147512	147499
						245.0	.41	5	5	88406	88407	245.0	.41	5	5	148074	148061
						250.0	.41	5	5	88967	88969	250.0	.41	5	5	148635	148622

255.0	.01	$	$	89529	89530	255.0	.01	$	$	149197	149184
261.0	.01	$	$	91392	91392	261.0	.01	$	$	149754	149745
265.0	.01	$	$	90652	90654	265.0	.01	$	$	150320	150307
271.0	.01	$	$	91213	91215	271.0	.01	$	$	151481	151458
275.0	.01	$	$	91775	91777	275.0	.01	$	$	151443	151430
281.0	.01	$	$	92336	92338	281.0	.01	$	$	152318	151991
285.0	.01	$	$	92898	92899	285.0	.01	$	$	152566	152553
291.0	.01	$	$	93459	93461	291.0	.01	$	$	153127	153114
295.0	.01	$	$	94021	94022	295.0	.01	$	$	153689	153676
301.0	.01	$	$	94582	94584	301.0	.01	$	$	154253	154237
305.0	.01	$	$	95144	95145	305.0	.01	$	$	154812	154799
311.0	.01	$	$	95705	95706	311.0	.01	$	$	155373	155360
315.0	.01	$	$	96267	96268	315.0	.01	$	$	155935	155922
321.0	.01	$	$	96828	96829	321.0	.01	$	$	156496	156483
325.0	.01	$	$	97390	97391	325.0	.01	$	$	157058	157045
331.0	.01	$	$	97951	97952	331.0	.01	$	$	157621	157607
335.0	.01	$	$	98513	98514	335.0	.01	$	$	158181	158168
341.0	.01	$	$	99074	99076	341.0	.01	$	$	158743	158729
345.0	.01	$	$	99636	99637	345.0	.01	$	$	159304	159291
351.0	.01	$	$	100197	100198	351.0	.01	$	$	159865	159852
355.0	.01	$	$	100759	100760	355.0	.01	$	$	160427	160414
361.0	.01	$	$	101320	101321	361.0	.01	$	$	160989	160975
						365.0	.01	$	$	161550	161537
						371.0	.01	$	$	162112	162098
						375.0	.01	$	$	162673	162660
						381.0	.01	$	$	163235	163221
						385.0	.01	$	$	163796	163783
						391.0	.01	$	$	164354	164344
						395.0	.01	$	$	164919	164906
						401.0	.01	$	$	165481	165467
						405.0	.01	$	$	166042	166029
						411.0	.01	$	$	166604	166590
						415.0	.01	$	$	167165	167152
						421.0	.01	$	$	167727	167713
						425.0	.01	$	$	168288	168274
						431.0	.01	$	$	168851	168836
						435.0	.01	$	$	169411	169398
						441.0	.01	$	$	169973	169959
						445.0	.01	$	$	170534	170520
						451.0	.01	$	$	171195	171182
						455.0	.01	$	$	171657	171644
						461.0	.01	$	$	172219	172205
						465.0	.01	$	$	172780	172767
						471.0	.01	$	$	173342	173328
						475.0	.01	$	$	173903	173890
						481.0	.01	$	$	174465	174451

56	6335.	.55	6335.	.55	599.31	.	599.31
57	6335.	.55	6335.	.55	599.31	.	599.31
58	6335.	.55	6335.	.55	599.31	.	599.31
59	6335.	.55	6335.	.55	599.31	.	599.31
60	6335.	.55	6335.	.55	599.31	.	599.31
61	6335.	.55	6335.	.55	599.31	.	599.31
62	6335.	.55	6335.	.55	599.31	.	599.31

**** KUMULATIVERGEBNISSE **** RUNDENNUMMER = 5 ANFANGSKUNDEN = 1197 ENDKUNDEN = 1197

INTERVALLE	QA (L/SEC)	PA (%)	QE (L/SEC)	PE (%)	SCHMUTZ1 (KG/IMT)	SCHMUTZ2 (KG/IMT)	SCHMUTZ3 (KG/IMT)	SCHMUTZ4 (KG/IMT)
1	19977.	.33	19977.	.33	599.31	.00	599.31	
2	19977.	.33	19977.	.33	599.31	.00	599.31	
3	19977.	.33	19977.	.33	599.31	.00	599.31	
4	19977.	.33	19977.	.33	599.31	.00	599.31	
5	19977.	.33	19977.	.33	599.31	.00	599.31	
6	19977.	.33	19977.	.33	599.31	.00	599.31	
7	19977.	.33	19977.	.33	599.31	.00	599.31	
8	19977.	.33	19977.	.33	599.31	.00	599.31	
9	19977.	.33	19977.	.33	599.31	.00	599.31	
10	19977.	.33	19977.	.33	599.31	.00	599.31	
11	19977.	.33	19977.	.33	599.31	.00	599.31	
12	19977.	.33	19977.	.33	599.31	.00	599.31	
13	19977.	.33	19977.	.33	599.31	.00	599.31	
14	19977.	.33	19977.	.33	599.31	.00	599.31	
15	32821.	.54	32836.	.53	1007.14	79.26	927.87	
16	49816.	.82	49847.	.82	1454.96	234.59	122.57	
17	64183.	1.04	62737.	1.04	1934.91	484.37	144.14	
18	77315.	1.31	77517.	1.31	2353.93	769.20	1584.73	
19	93240.	1.54	93327.	1.54	2833.56	1135.49	1654.26	
20	109177.	1.8	109767.	1.79	3252.92	1608.06	1644.86	
21	123432.	2.04	123225.	2.03	3732.47	2133.92	1564.91	
22	138886.	2.29	138[illegible].	2.29	4151.91	2738.29	1413.66	
23	153535.	2.53	153359.	2.53	4601.43	3417.06	1183.77	
24	166744.	2.78	166333.	2.78	5 5[illegible].93	4171.92	879.01	
25	183681.	3.03	183812.	3.03	5551.43	5031.37	519.86	
26	196617.	3.24	196227.	3.27	5989.92	5545.68	44.24	
27	197217.	3.11	196647.	3.12	5543.17	5167.54	42[illegible].64	
28	169[illegible].	2.79	169271.	2.79	5138.61	4326.86	811.74	
29	157341.	2.61	157855.	2.61	4647.78	3557.00	1113[illegible].74	
30	134431.	2.21	134[illegible].	2.21	4238.89	2863.68	1375.21	
31	126772.	2.1[illegible]	127262.	2.1[illegible]	3784.94	2244.11	1540.83	
32	11[illegible].246.	1.82	11[illegible].	1.83	3339.78	1700.28	1639.51	
33	9668[illegible].	1.6[illegible]	96447.	1.61	2991.17	1231.35	1759.82	
34	8[illegible].571.	1.43	81[illegible].	1.34	2481.69	836.06	1644.63	
35	66461.	1.1[illegible]	66564.	1.1[illegible]	1991.15	517.33	1473.82	
36	5[illegible]824.	.86	51[illegible].	.85	1581.65	272.92	1264.73	
37	363[illegible]2.	.6[illegible]	3644[illegible].	.61	1192.16	153.51	938.65	
38	21[illegible]24.	.35	21[illegible]7.	.36	882.66	8.71	873.95	
39	14[illegible]36.	.51	14[illegible]3.	.51	6[illegible].48	.32	6[illegible].66	
40	2[illegible]821.	.48	2[illegible]34[illegible].	.45	599.32	.01	599.31	
41	19225.	.32	19[illegible]3.	.31	599.33	.00	599.33	
42	2[illegible]846.	.48	2[illegible].	.48	599.29	.00	599.29	
43	19[illegible]42.	.32	19[illegible]2.	.32	599.33	.00	599.33	
44	2[illegible]5[illegible]2.	.48	2[illegible].	.48	599.31	.00	599.[illegible]	
45	19[illegible]4.	.32	19[illegible]5.	.32	599.32	.00	599.32	

46	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
47	19925.	[illegible]	[illegible]	[illegible]	599.31	[illegible]	[illegible]
48	20277.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
49	19721.	.33	[illegible]	.33	599.31	[illegible]	599.31
50	20132.	.33	[illegible]	.33	599.31	[illegible]	599.31
51	19794.	.33	[illegible]	.33	599.31	[illegible]	599.31
52	20127.	.33	[illegible]	.33	599.31	[illegible]	599.31
53	19961.	.33	19972.	.33	599.31	[illegible]	599.31
54	20077.	.33	[illegible]	.33	599.31	[illegible]	599.31
55	19911.	.33	[illegible]	.33	599.31	[illegible]	599.31
56	20022.	.33	[illegible]	.33	599.31	[illegible]	599.31
57	19951.	.33	20065.	.33	599.31	[illegible]	599.31
58	19988.	.33	19876.	.33	599.31	[illegible]	599.31
59	19982.	.33	[illegible]	.33	599.31	[illegible]	599.31
60	19959.	.33	19857.	.33	599.31	[illegible]	599.31
61	20018.	.33	[illegible]	.33	599.31	[illegible]	599.31
62	19996.	.33	19864.	.33	599.31	[illegible]	599.31
63	20128.	.33	20117.	.33	599.31	[illegible]	599.31
64	19928.	.33	19848.	.33	599.31	[illegible]	599.31
65	20155.	.33	[illegible]	.33	599.31	[illegible]	599.31
66	19916.	.33	19853.	.33	599.31	[illegible]	599.31
67	20249.	.33	20207.	.33	599.31	[illegible]	599.31
68	[illegible]	.33	19872.	.33	599.31	[illegible]	599.31
69	20187.	.33	20246.	.33	599.31	[illegible]	599.31
70	[illegible]	.33	19874.	.33	599.31	[illegible]	599.31
71	20188.	.33	20173.	.33	599.31	[illegible]	599.31
72	[illegible]	.33	19887.	.33	599.31	[illegible]	599.31

**** ROHR ERGEBNISSE **** ROHRNUMMER = 85 ANFANGSKNOTEN = 1132 ENDKNOTEN = 1130

INTERVALLE	QA (L/SEC)	HA (M)	QE (L/SEC)	HE (M)	SCHMUTZ1 (KG/INT)	SCHMUTZ2 (KG/INT)	SCHMUTZ3 (KG/INT)	SCHMUTZ4 (KG/INT)
1	19977.	.33	19977.	.33	599.31	.00	599.31	
2	19977.	.33	19977.	.33	599.31	.00	599.31	
3	19977.	.33	19977.	.33	599.31	.00	599.31	
4	19977.	.33	19977.	.33	599.31	.00	599.31	
5	19977.	.33	19977.	.33	599.31	.00	599.31	
6	19977.	.33	19977.	.33	599.31	.00	599.31	
7	19977.	.33	19977.	.33	599.31	.00	599.31	
8	19977.	.33	19977.	.33	599.31	.00	599.31	
9	19977.	.33	19977.	.33	599.31	.00	599.31	
10	19977.	.33	19977.	.33	599.31	.00	599.31	
11	19977.	.33	19977.	.33	599.31	.00	599.31	
12	19977.	.33	19977.	.33	599.31	.00	599.31	
13	19977.	.33	19977.	.33	599.31	.00	599.31	
14	19977.	.33	19977.	.33	599.31	.00	599.31	
15	31572.	.5[illegible]	31172.	.5[illegible]	964.13	71.91	847.42	
16	48699.	.8[illegible]	482[illegible].	.8[illegible]	1411.45	219.71	1192.24	
17	61456.	1.02	614[illegible].	1.01	1901.19	442.48	1414.71	
18	77622.	1.28	772[illegible].	1.27	231[illegible].62	74[illegible]	157[illegible].52	
19	92201.	1.52	[illegible]	1.52	276[illegible].13	11[illegible]3.49	1647.29	
20	107151.	1.77	10[illegible].	1.76	32[illegible].63	1558.5[illegible]	1644.29	
21	122437.	2.02	122244.	2.02	3659.[illegible]	2[illegible]92.5[illegible]	1576.43	
22	136982.	2.26	1365[illegible].	2.25	4108.67	268[illegible].24	1428.36	
23	152584.	2.52	152244.	2.51	4558.[illegible]	3352.41	12[illegible].64	
24	1668[illegible].	2.75	1665[illegible].	2.75	5[illegible]7.64	4[illegible]99.52	[illegible].12	
25	1424[illegible].	3.01	1421[illegible]7.	3.01	5457.[illegible]	4421.44	535.22	
26	19691[illegible].	3.25	1966[illegible].	3.25	54[illegible]6.61	5418.62	[illegible]7.74	

27	19112[illegible].	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	17[illegible]4.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	774.1[illegible]
29	1[illegible].	[illegible]	[illegible]	[illegible]	4731.1[illegible]	[illegible]	1[illegible].71
30	1417[illegible].	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1351.51
31	1275[illegible].	[illegible]	1275[illegible].	2.11	[illegible]	[illegible]	1523.27
32	11[illegible]7[illegible]1.	1.[illegible]	[illegible]	1.[illegible]	[illegible]	1782.[illegible]	16[illegible]
33	[illegible]	1.[illegible]	[illegible]	1.[illegible]	2[illegible]33.54	1276.[illegible]	1[illegible]
34	[illegible]314[illegible].	1.37	[illegible]612.	1.35	2[illegible]	[illegible]74.92	16[illegible]
35	[illegible]	1.1	[illegible]	1.11	[illegible]	[illegible]	1[illegible]
36	[illegible]26[illegible].	.[illegible]	[illegible]611.	.[illegible]	1[illegible]	[illegible]76.76	12[illegible].17
37	36[illegible]7[illegible].	.61	37157.	.61	1135.50	11[illegible]	1[illegible].61
38	2321[illegible].	.[illegible]	23452.	.39	665.[illegible]	18.11	667.[illegible]
39	1763[illegible].	.29	17611.	.29	6[illegible].53	1.45	6[illegible]
40	216[illegible].	.36	2147[illegible].	.35	599.64	.[illegible]7	599.57
41	18[illegible]34.	.31	1916[illegible].	.32	599.34	.[illegible]	599.34
42	2[illegible]56[illegible].	.34	2[illegible]2[illegible].	.33	599.3[illegible]	.[illegible]	599.3
43	1975[illegible].	.33	2[illegible]49.	.33	599.31	.[illegible]	599.31
44	1993[illegible].	.33	1[illegible]639.	.32	599.32	.[illegible]	599.32
45	2[illegible]22[illegible].	.33	2[illegible]491.	.34	599.3[illegible]	.[illegible]	599.3[illegible]
46	19594.	.32	1[illegible]35[illegible].	.32	599.32	.[illegible]	599.32
47	2[illegible]451.	.34	2[illegible]645.	.34	599.3[illegible]	.[illegible]	599.3[illegible]
48	1[illegible]4[illegible].	.32	1[illegible]3[illegible].	.32	599.33	.[illegible]	599.33
49	2[illegible]522.	.34	2[illegible]624.	.34	599.3[illegible]	.[illegible]	599.3[illegible]
50	19437.	.32	1938[illegible].	.32	599.32	.[illegible]	599.32
51	2[illegible]4[illegible].	.34	2[illegible]5[illegible]7.	.34	599.3[illegible]	.[illegible]	599.3
52	19497.	.32	1952[illegible].	.32	599.32	.[illegible]	599.32
53	2[illegible]4[illegible].	.34	2[illegible]35[illegible].	.34	599.3[illegible]	.[illegible]	599.3
54	1[illegible]5[illegible].	.32	19606.	.33	599.32	.[illegible]	599.32
55	2[illegible]299.	.34	2[illegible]187.	.33	599.31	.[illegible]	599.31
56	19714.	.33	19643.	.33	599.31	.[illegible]	599.31
57	2[illegible]19[illegible].	.33	2[illegible]34[illegible].	.33	599.31	.[illegible]	599.31
58	19828.	.33	19978.	.33	599.31	.[illegible]	599.31
59	2[illegible]174.	.33	1[illegible]7[illegible].	.33	599.31	.[illegible]	599.31
60	19929.	.33	2[illegible]3.	.33	599.31	.[illegible]	599.31
61	1998[illegible].	.33	19831.	.33	599.31	.[illegible]	599.31
62	2[illegible]13[illegible].	.33	2[illegible]155.	.33	599.31	.[illegible]	599.31
63	199[illegible]6.	.33	19774.	.33	599.32	.[illegible]	599.32
64	2[illegible]78.	.33	2[illegible]19[illegible].	.33	599.3[illegible]	.[illegible]	599.3[illegible]
65	19852.	.33	19745.	.33	599.32	.[illegible]	599.32
66	2[illegible]122.	.33	2[illegible]214.	.33	599.3[illegible]	.[illegible]	599.3[illegible]
67	19817.	.33	19741.	.33	599.32	.[illegible]	599.32
68	2[illegible]14[illegible].	.33	2[illegible]2[illegible].	.33	599.3[illegible]	.[illegible]	599.3
69	198[illegible].	.33	19755.	.33	599.32	.[illegible]	599.32
70	2[illegible]157.	.33	2[illegible]1[illegible].	.33	599.3[illegible]	.[illegible]	599.3[illegible]
71	19797.	.33	19753.	.33	599.32	.[illegible]	599.32
72	2[illegible]154.	.33	2[illegible]153.	.33	599.31	.[illegible]	599.31

**** ROHR ERGEBNISSE ** * ROHRNUMMER = 90 ANFANGSKNOTEN = 1122 ENDKNOTEN = 1120

INTERVALL	QA (L/SEC)	HA (M)	QE (L/SEC)	HE (M)	SCHMUTZ1 (KG/INT)	SCHMUTZ2 (KG/INT)	SCHMUTZ3 (KG/INT)	SCHMUTZ4 (KG/INT)
1	19977.	.33	19977.	.33	599.31	.[illegible]	599.31	
2	19977.	.33	19977.	.33	599.31	.[illegible]	599.31	
3	19977.	.33	19977.	.33	599.31	.[illegible]	599.31	
4	19977.	.33	19977.	.33	599.31	.[illegible]	599.31	
5	19977.	.33	19977.	.33	599.31	.[illegible]	599.31	
6	19977.	.33	19977.	.33	599.31	.[illegible]	599.31	
7	19977.	.33	19977.	.33	599.31	.[illegible]	599.31	

71	2.[illegible]	.33	[illegible]	.33	[illegible]	.	[illegible]
72	1.[illegible]	.32	[illegible]	.32	[illegible]	.	[illegible]

**** [illegible] **** [illegible] = 72 [illegible] = 111 [illegible] = 111

INTERVALS	QA (LZSEC)	PA (*)	QI (LZSEC)	RE (*)	SCHROEDER1 (DB/HZ)	SCHROEDER2 (DB/HZ)	SCHROEDER3 (DB/HZ)	SCHROEDER4 (DB/HZ)
1	19977.	.33	19977.	.33	599.51	.00	599.51	
2	19977.	.33	19977.	.33	599.51	.00	599.51	
3	19977.	.33	19977.	.33	599.51	.00	599.51	
4	19977.	.33	19977.	.33	599.51	.00	599.51	
5	19977.	.33	19977.	.33	599.51	.00	599.51	
6	19977.	.33	19977.	.33	599.51	.00	599.51	
7	19977.	.33	19977.	.33	599.51	.00	599.51	
8	19977.	.33	19977.	.33	599.51	.00	599.51	
9	19977.	.33	19977.	.33	599.51	.00	599.51	
10	19977.	.33	19977.	.33	599.51	.00	599.51	
11	19977.	.33	19977.	.33	599.51	.00	599.51	
12	19977.	.33	19977.	.33	599.51	.00	599.51	
13	19977.	.33	19977.	.33	599.51	.00	599.51	
14	19977.	.33	19977.	.33	599.51	.00	599.51	
15	27145.	.45	26915.	.44	903.93	59.19	844.71	
16	44329.	.74	44521.	.73	1324.07	192.48	1135.59	
17	59461.	.99	59669.	.97	1774.71	401.78	1373.93	
18	73677.	1.22	73921.	1.21	2224.13	683.99	1540.14	
19	9[illegible]101.	1.49	89451.	1.46	2673.42	1038.52	1631.19	
20	1[illegible]3625.	1.71	1[illegible]358.	1.71	3123.10	1472.50	1647.60	
21	119644.	1.97	119334.	1.97	3577.83	1988.60	1589.22	
22	13426[illegible].	2.22	134[illegible]55.	2.21	4021.44	2566.21	1455.66	
23	147241.	2.46	144873.	2.45	4471.45	3224.09	1247.35	
24	164548.	2.72	164323.	2.71	4921.90	3956.68	964.22	
25	17[illegible].	2.95	178671.	2.95	537[illegible].48	4784.62	605.87	
26	194614.	3.21	194359.	3.21	5819.87	5647.17	172.69	
27	194463.	3.21	194724.	3.22	5659.[illegible]	5317.54	341.33	
28	17466[illegible].	2.89	175152.	2.89	5261.[illegible]	456[illegible].[illegible]	7[illegible].44	
29	157247.	2.63	157[illegible].4.	2.63	4818.15	3741.74	1[illegible]36.11	
30	146882.	2.43	147243.	2.43	4368.25	3[illegible]66.81	13[illegible].45	
31	1269[illegible].6.	2.13	127259.	2.13	3919.51	2426.53	1492.97	
32	1164[illegible].7.	1.92	11656[illegible].	1.92	3469.53	1[illegible]6[illegible].46	16[illegible].7	
33	9[illegible]984.	1.65	1[illegible]326.	1.66	3020.27	1369.79	165[illegible].48	
34	85459.	1.41	85546.	1.41	257[illegible].75	953.72	1617.03	
35	7[illegible].75[illegible].	1.17	71221.	1.18	2121.17	612.64	15[illegible]8.52	
36	54831.	.91	54941.	.91	1671.[illegible]8[illegible]	546.59	13[illegible]5.21	
37	41211.	.68	41581.	.69	1222.16	155.33	1[illegible]66.80	
38	24661.	.41	24932.	.41	772.78	39.02	733.76	
39	13857.	.23	13831.	.23	627.76	6[illegible]8	6[illegible]1.69	
40	1979[illegible].	.33	19765.	.33	6[illegible]2.44	.65	6[illegible]1.79	
41	2[illegible]912.	.35	2[illegible]898.	.34	599.54	.05	599.49	
42	1883[illegible].	.31	18984.	.31	599.35	.00	599.35	
43	2[illegible]877.	.34	22711.	.34	599.29	.05	599.24	
44	19625.	.32	19654.	.32	599.32	.00	599.32	
45	2[illegible]137.	.35	1[illegible]5.	.33	599.31	.00	599.31	
46	2[illegible]179.	.34	2[illegible].	.34	599.3[illegible]	.00	599.3[illegible]	
47	19483.	.32	19297.	.32	599.33	.00	599.33	
48	2[illegible]67[illegible].	.34	2[illegible].	.34	599.29	.00	599.29	
49	1916[illegible].	.32	19[illegible].	.32	599.33	.00	599.33	
50	2[illegible]81[illegible].	.34	2[illegible]23.	.34	599.29	.00	599.29	
51	19[illegible]76.	.32	19234.	.32	599.33	.00	599.33	

52	[illegible]	.59	[illegible]	.59	599.51	.	599.51
53	19[illegible]	.53	19[illegible]	.53	599.52	.	599.52
54	[illegible]	.53	[illegible]	.53	599.51	.	599.51
55	19777.	.53	19777.	.53	599.51	.	599.51
56	[illegible]	.53	19[illegible]	.53	599.51	.	599.51
57	[illegible]	.53	[illegible]	.53	599.5	.	599.5
58	19[illegible]	.53	19[illegible]	.53	599.52	.	599.52
59	[illegible]	.53	[illegible]	.54	599.5[illegible]	.	599.5[illegible]
6	19[illegible]	.52	19[illegible]	.52	599.52	.	599.52
61	[illegible]	.54	[illegible]	.54	599.5[illegible]	.	599.5[illegible]
62	19837.	.52	19[illegible]	.52	599.52	.	599.52
63	[illegible]	.54	[illegible]	.54	599.5[illegible]	.	599.5
64	19[illegible]	.52	19[illegible]	.52	599.52	.	599.52
65	[illegible]	.54	[illegible]	.54	599.5[illegible]	.	599.5[illegible]
66	19584.	.52	19678.	.52	599.52	.	599.52
67	[illegible]	.54	[illegible]	.55	599.5[illegible]	.	599.5[illegible]
68	1971[illegible]	.53	19844.	.53	599.51	.	599.51
69	[illegible]	.53	[illegible]	.53	599.51	.	599.51
7	19858.	.53	[illegible]	.53	599.51	.	599.51
71	[illegible]	.53	19787.	.53	599.51	.	599.51
72	19994.	.53	[illegible]	.53	599.51	.	599.51

**** ROHR 1466MATSSE **** ROHRNUMMER = 1.. ANFANGSKRGTEN = 11.2 ENDKNOTEN = 1100

INTERVALLE	QA (L/SEC)	HA (M)	QE (L/SEC)	HE (M)	SCHMUTZ1 FRACHT (KG/INT)	CONCENTR MG/L	SCHMUTZ2 FRACHT (KG/INT)	CONC MG/L	SCHMUTZ3 FRACHT (KG/INT)	CONC MG/L	SCHMUTZ4 (KG/INT)
1	19777.	.33	19777.	.33	599.51		[illegible]		599.31		599.31
2	19777.	.33	19777.	.33	599.51		[illegible]		599.31		599.31
3	19777.	.33	19777.	.33	599.51		[illegible]		599.31		599.31
4	19777.	.33	19777.	.33	599.51		[illegible]		599.31		599.31
5	19777.	.33	19777.	.33	599.51		[illegible]		599.31		599.31
6	19777.	.33	19777.	.33	599.51		[illegible]		599.31		599.31
7	19777.	.33	19777.	.33	599.51		[illegible]		599.31		599.31
8	19777.	.33	19777.	.33	599.51		[illegible]		599.31		599.31
9	19777.	.33	19777.	.33	599.51		[illegible]		599.31		599.31
1[illegible]	19777.	.33	19777.	.33	599.51		[illegible]		599.31		599.31
11	19777.	.33	19777.	.33	599.51		[illegible]		599.31		599.31
12	19777.	.33	19777.	.33	599.51		[illegible]		599.31		599.31
13	19777.	.33	19777.	.33	599.51		[illegible]		599.31		599.31
14	19777.	.33	19777.	.33	599.51	100	[illegible]	0	599.31	100	
15	25823.	.82	25824.	.82	875.65		53.7[illegible]		821.95		
16	82787.	.71	82823.	.7	1287.65	101	179.91	14	11[illegible].75	87	
17	56[illegible]	.27	56787.	.27	1731.73		38[illegible].97		135[illegible].75		
18	72[illegible]	1.19	717[illegible]	1.18	2186.74	101	656.97	31	1529.78	71	
19	84[illegible]	1.86	84[illegible]	1.86	263[illegible]		1[illegible].38		1422.13		
2	1.[illegible]	1.89	1.[illegible]	1.69	3.79.64	100	143[illegible].81	47	1645.79	54	
21	117483.	1.74	117484.	1.74	3529.13		1[illegible]3.73		1548.54		
22	173221.	2.2[illegible]	17[illegible].	2.2[illegible]	3478.57	100	251[illegible].21	63	1408.24	37	
23	187471.	2.83	187147.	2.83	4828.15		3163.77		1267.16		
24	163[illegible].	2.64	163[illegible].	2.64	4477.55	100	3[illegible]86.32	74	[illegible]91.24	20	
25	177[illegible].	2.73	177[illegible].	2.73	5327.15		[illegible]687.[illegible]2		64[illegible].13		
26	192[illegible].	2.[illegible]	19[illegible].	3.[illegible]	5776.56	100	5562.2[illegible]	96	214.27	4	
27	175[illegible].	3.23	175[illegible].	3.23	5671.23		5344.68		327.25		
28	177[illegible].	2.73	177[illegible].	2.73	5246.77	99	4631.34	47	607.43	13	
29	15[illegible].	2.68	15[illegible].	2.68	4[illegible]6.42		3857.28		1[illegible]3.78		
3	18[illegible].	2.85	18[illegible].	2.85	4811.54	99	3135.96	70	1215.57	29	
31	13[illegible].	2.15	131[illegible].	2.17	3462.75		2488.58		1474.21		
32	117[illegible].	1.93	117[illegible].	1.93	3513.[illegible]3	100	1915.4[illegible]	54	1597.64	45	

ENVIRONMENTAL PROTECTION AGENCY STORMWATER MANAGEMENT MODEL

INPUT DATA LISTING FOR HYPOTHETICAL CATCHMENT SIMULATION

ENVIRONMENTAL PROTECTION AGENCY - STORM WATER MANAGEMENT MODEL

DEVELOPED BY METCALF & EDDY, INC.
UNIVERSITY OF FLORIDA
WATER RESOURCES ENGINEERS, INC.

SEPTEMBER 1970

UPDATED BY UNIVERSITY OF FLORIDA
JUNE 1973

TAPE OR DISK ASSIGNMENTS

JIN(1) = 0	JIN(2) = 8	JIN(3) = 0	JIN(4) = 0	JIN(5) = 0	JIN(6) = 0	JIN(7) = 0	JIN(8) = 0	JIN(9) = 0	JIN(10) = 0
JOUT(1) = 8	JOUT(2) = 9	JOUT(3) = 0	JOUT(4) = 0	JOUT(5) = 0	JOUT(6) = 0	JOUT(7) = 0	JOUT(8) = 0	JOUT(9) = 0	JOUT(10) = 0
	NSCRAT(1) = 1		NSCRAT(2) = 2		NSCRAT(3) = 3		NSCRAT(4) = 4		NSCRAT(5) = 7

UPDATED BY UNIVERSITY OF FLORIDA

JUNE 1973

WATERSHE PROGRAM CALLED

ENTRY MADE TO RUNOFF MODEL
SEWER MODEL EVALUATION--HYPOTHETICAL CATCHMENT DATA
RAINFALL-RUNOFF ANALYSIS

INLET NUMBER 20

NUMBER OF TIME STEPS 144

INTEGRATION TIME INTERVAL (MINUTES), 5.00

*0.0 PERCENT OF IMPERVIOUS AREA HAS ZERO DETENTION DEPTH

FOR 25 RAINFALL STEPS, THE TIME INTERVAL IS 5.00 MINUTES

FOR RAINGAGE NUMBER 1 RAINFALL HISTORY IN INCHES PER HOUR

0.00	.08	.25	.42	.58	.75	.92	1.08	1.25	1.42
1.58	1.75	1.92	1.92	1.75	1.58	1.42	1.25	1.08	.92
.75	.58	.42	.25	.08					

SUBAREA NUMBER	GUTTER OR MANHOLE	WIDTH (FT)	AREA (AC)	PERCENT IMPERV.	SLOPE (FT/FT)	RESISTANCE FACTOR IMPERV.	RESISTANCE FACTOR PERV.	SURFACE STORAGE(IN) IMPERV.	SURFACE STORAGE(IN) PERV.	INFILTRATION RATE(IN/HR) MAXIMUM	INFILTRATION RATE(IN/HR) MINIMUM	INFILTRATION RATE(IN/HR) DECAY RATE	GAGE NO
1	1	500.	11.5	.0	.1000	.025	.250	.050	.200	2.00	.50	.00100	1
2	2	500.	11.5	25.0	.1000	.025	.250	.050	.200	2.00	.50	.00100	1
3	3	500.	11.5	50.0	.1000	.025	.250	.050	.200	2.00	.50	.00100	1
4	4	500.	11.5	75.0	.1000	.025	.250	.050	.200	2.00	.50	.00100	1
5	5	500.	11.5	99.9	.1000	.025	.250	.050	.200	2.00	.50	.00100	1
6	6	1000.	11.5	.0	.1000	.025	.250	.050	.200	2.00	.50	.00100	1
7	7	1000.	11.5	25.0	.1000	.025	.250	.050	.200	2.00	.50	.00100	1
8	8	1000.	11.5	50.0	.1000	.025	.250	.050	.200	2.00	.50	.00100	1
9	9	1000.	11.5	75.0	.1000	.025	.250	.050	.200	2.00	.50	.00100	1
10	10	1000.	11.5	99.9	.1000	.025	.250	.050	.200	2.00	.50	.00100	1
11	11	500.	11.5	.0	.0010	.025	.250	.050	.200	2.00	.50	.00100	1
12	12	500.	11.5	25.0	.0010	.025	.250	.050	.200	2.00	.50	.00100	1
13	13	500.	11.5	50.0	.0010	.025	.250	.050	.200	2.00	.50	.00100	1
14	14	500.	11.5	75.0	.0010	.025	.250	.050	.200	2.00	.50	.00100	1
15	15	500.	11.5	99.9	.0010	.025	.250	.050	.200	2.00	.50	.00100	1
16	16	1000.	11.5	.0	.0010	.025	.250	.050	.200	2.00	.50	.00100	1
17	17	1000.	11.5	25.0	.0010	.025	.250	.050	.200	2.00	.50	.00100	1
18	18	1000.	11.5	50.0	.0010	.025	.250	.050	.200	2.00	.50	.00100	1
19	19	1000.	11.5	75.0	.0010	.025	.250	.050	.200	2.00	.50	.00100	1
20	20	1000.	11.5	99.9	.0010	.025	.250	.050	.200	2.00	.50	.00100	1

TOTAL NUMBER OF SUBCATCHMENTS, 20

TOTAL TRIBUTARY AREA (ACRES), 229.60

ARRANGEMENT OF SUBCATCHMENTS AND GUTTERS/PIPES

GUTTER INLET — TRIBUTARY GUTTER/PIPE — TRIBUTARY SUBAREA

TRIBUTARY GUTTER=PIPE=MANHOLE — TRIBUTARY SUBAREA

	20								
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

HYDROGRAPHS WILL BE STORED FOR THE FOLLOWING 20 POINTS

1		2		3		4		5	6	7	8	9	10
11		12		13		14		15	16	17	18	19	20

2hr Δ
dry

HYDROGRAPHS ARE LISTED FOR THE FOLLOWING 20 POINTS

TIME	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
10 5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 10.00	.00	.01	.01	.01	.01	.00	.02	.02	.02	.02
	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10 15.00	.00	.14	.15	.16	.16	.00	.23	.27	.29	.31
	.00	.02	.02	.02	.02	.00	.03	.03	.03	.03
10 20.00	.00	.52	.65	.70	.74	.00	.74	1.04	1.19	1.29
	.00	.08	.08	.08	.08	.00	.15	.16	.16	.17
10 25.00	.00	1.08	1.53	1.77	1.92	.00	1.34	2.17	2.70	3.07
	.00	.23	.24	.24	.25	.00	.40	.45	.47	.48
10 30.00	.00	1.68	2.67	3.28	3.70	.00	1.89	3.36	4.48	5.34
	.00	.47	.52	.54	.55	.00	.80	.95	1.01	1.04
10 35.00	.00	2.25	3.87	5.03	5.88	.00	2.41	4.50	6.26	7.74
	.00	.83	.96	1.01	1.04	.00	1.31	1.66	1.83	1.92
10 40.00	.00	2.78	5.04	6.84	8.26	.00	2.91	5.56	7.95	10.08
	.00	1.29	1.56	1.67	1.74	.00	1.88	2.57	2.92	3.12
10 45.00	.00	3.29	6.15	8.60	10.65	.00	3.41	6.58	9.55	12.30
	.00	1.81	2.32	2.55	2.67	.00	2.48	3.63	4.25	4.64
10 50.00	.01	3.81	7.23	10.30	12.99	.02	3.92	7.61	11.12	14.43
	.00	2.39	3.22	3.62	3.86	.00	3.08	4.78	5.78	6.44
10 55.00	.29	4.58	8.54	12.19	15.26	.57	4.96	9.14	13.14	16.51
	.03	3.01	4.27	4.92	5.29	.06	3.72	6.03	7.51	8.49
11 0.00	.91	5.69	10.14	14.29	17.43	1.74	6.58	11.18	15.50	18.54
	.10	3.68	5.44	6.41	6.95	.19	4.41	7.36	9.40	10.69
11 5.00	1.88	7.11	12.01	16.53	19.56	3.46	8.66	13.55	17.94	20.56
	.20	4.38	6.70	8.08	8.80	.40	5.17	8.76	11.39	13.01
11 10.00	3.09	8.50	13.63	18.27	21.07	5.45	10.62	15.46	19.57	21.80
	.35	5.02	7.92	9.75	10.68	.69	5.85	10.02	13.24	15.16
11 15.00	4.29	9.35	14.28	18.66	21.16	7.20	11.74	15.99	19.44	21.35
	.51	5.42	8.82	11.10	12.25	1.00	6.23	10.78	14.47	16.64
11 20.00	5.28	9.71	14.09	17.89	20.07	8.40	12.09	15.48	18.12	19.77
	.67	5.54	9.30	11.97	13.34	1.31	6.30	10.99	14.95	17.30
11 25.00	6.00	9.79	13.50	16.63	18.53	9.02	11.94	14.53	16.49	17.97
	.82	5.49	9.45	12.41	13.98	1.58	6.21	10.82	14.88	17.31
11 30.00	6.43	9.59	12.64	15.14	16.82	9.15	11.37	13.29	14.75	16.12
	.95	5.31	9.32	12.48	14.21	1.80	6.01	10.41	14.39	16.84
11 35.00	6.59	9.14	11.57	13.53	15.04	8.86	10.47	11.86	12.96	14.27
	1.05	5.05	9.00	12.25	14.09	1.98	5.73	9.82	13.62	16.01
11 40.00	6.49	8.47	10.35	11.85	13.24	8.26	9.34	10.31	11.17	12.43
	1.12	4.73	8.52	11.76	13.69	2.09	5.39	9.10	12.63	14.93
11 45.00	6.18	7.62	9.02	10.16	11.45	7.42	8.07	8.70	9.38	10.60
	1.17	4.36	7.92	11.09	13.05	2.15	4.98	8.30	11.50	13.68
11 50.00	5.68	6.64	7.61	8.46	9.68	6.43	6.71	7.07	7.61	8.79
	1.18	3.96	7.24	10.26	12.22	2.14	4.52	7.42	10.28	12.32
11 55.00	5.04	5.57	6.17	6.78	7.93	5.33	5.30	5.46	5.88	7.01
	1.16	3.52	6.49	9.32	11.25	2.07	4.01	6.49	8.99	10.89
12 0.00	4.30	4.44	4.73	5.15	6.23	4.18	3.90	3.88	4.21	5.28
	1.11	3.05	5.69	8.30	10.17	1.95	3.45	5.53	7.66	9.42
12 5.00	3.49	3.29	3.32	3.58	4.58	3.03	2.54	2.39	2.65	3.61
	1.03	2.57	4.87	7.22	9.02	1.78	2.87	4.54	6.33	7.94
12 10.00	2.69	2.27	2.12	2.27	3.17	2.00	1.42	1.20	1.45	2.24
	.94	2.12	4.08	6.17	7.88	1.58	2.31	3.62	5.09	6.56
12 15.00	2.00	1.51	1.29	1.43	2.21	1.18	.68	.52	.86	1.39
	.84	1.74	3.41	5.26	6.88	1.39	1.86	2.89	4.09	5.43
12 20.00	1.43	.98	.77	.97	1.61	.60	.25	.26	.56	.94

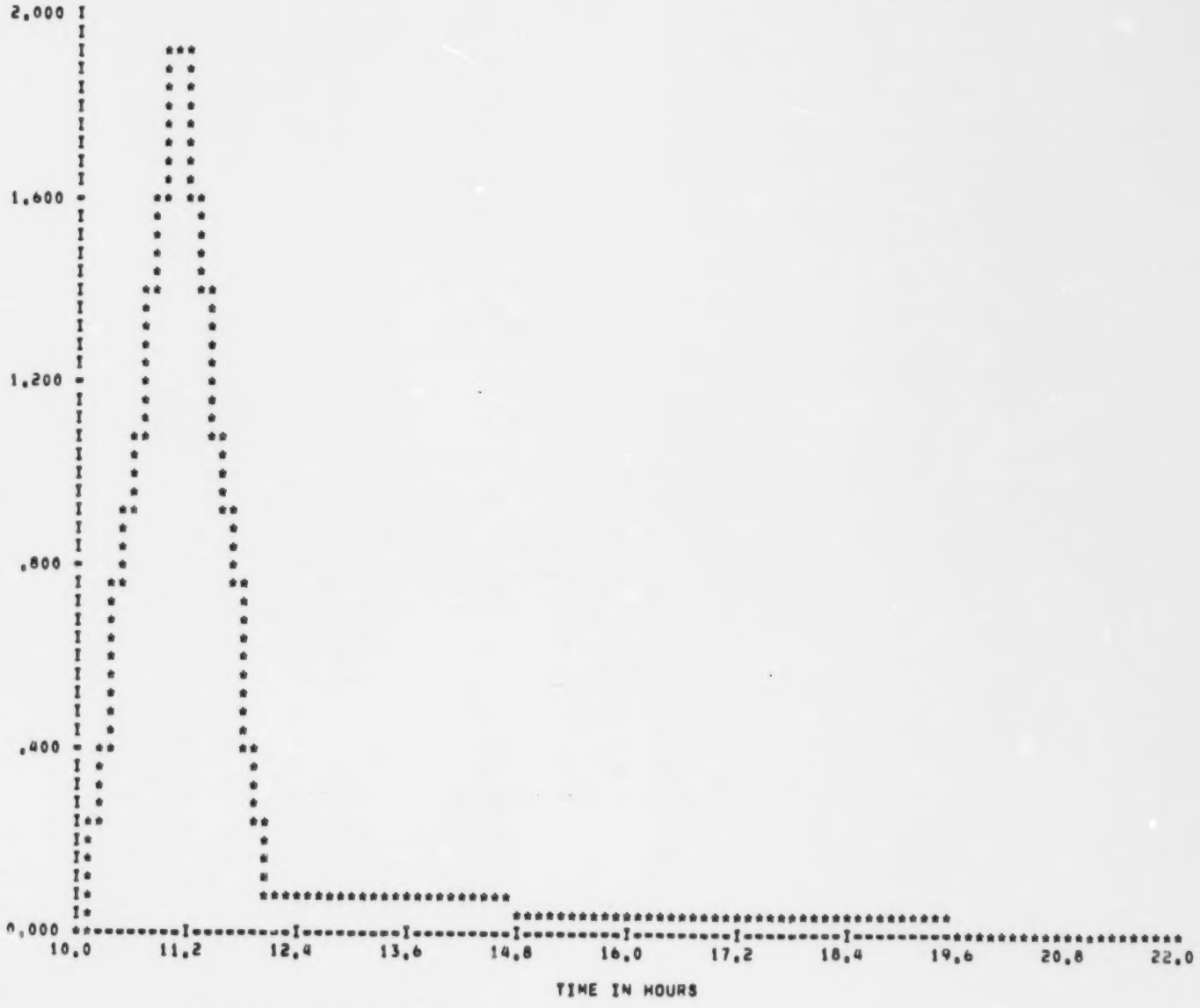
	.75	1.46	2.88	4.53	6.05	1.21	1.52	2.33	3.32	4.56
12 25.00	.98	.59	.44	.72	1.22	.21	.04	.17	.39	.67
	.46	1.23	2.46	3.92	5.36	1.04	1.25	1.89	2.72	3.87
12 30.00	.61	.31	.25	.55	.95	0.00	.03	.12	.28	.50
	.58	1.04	2.10	3.41	4.77	.88	1.03	1.54	2.25	3.31
12 35.00	.33	.12	.19	.43	.75	0.00	.02	.09	.21	.38
	.51	.88	1.81	2.98	4.27	.74	.84	1.26	1.88	2.87
12 40.00	.13	.03	.15	.34	.61	0.00	.02	.07	.17	.30
	.44	.75	1.56	2.62	3.83	.62	.68	1.03	1.58	2.50
12 45.00	0.00	.03	.12	.28	.50	0.00	.01	.05	.13	.24
	.37	.63	1.35	2.31	3.46	.50	.54	.84	1.34	2.20
12 50.00	0.00	.02	.10	.23	.42	0.00	.01	.04	.11	.20
	.31	.53	1.17	2.05	3.14	.40	.43	.68	1.15	1.94
12 55.00	0.00	.02	.08	.20	.36	0.00	.01	.04	.09	.16
	.25	.44	1.02	1.82	2.86	.30	.32	.55	1.01	1.73
13 0.00	0.00	.01	.07	.17	.31	0.00	.01	.03	.07	.14
	.20	.37	.88	1.63	2.61	.22	.24	.45	.90	1.54
13 5.00	0.00	.01	.06	.14	.26	0.00	.01	.02	.06	.12
	.16	.30	.77	1.47	2.39	.15	.17	.37	.80	1.38
13 10.00	0.00	.01	.05	.12	.23	0.00	.00	.02	.05	.10
	.12	.25	.67	1.33	2.19	.09	.11	.32	.71	1.25
13 15.00	0.00	.01	.04	.11	.20	0.00	.00	.02	.05	.09
	.08	.20	.59	1.22	2.02	.05	.08	.28	.64	1.13
13 20.00	0.00	.01	.04	.09	.18	0.00	.00	.02	.04	.08
	.05	.16	.52	1.12	1.87	.01	.06	.25	.58	1.03
13 25.00	0.00	.01	.03	.08	.16	0.00	.00	.01	.04	.07
	.03	.13	.47	1.03	1.73	0.00	.05	.23	.53	.94
13 30.00	0.00	.01	.03	.07	.14	0.00	.00	.01	.03	.06
	.01	.10	.41	.95	1.60	0.00	.05	.21	.48	.86
13 35.00	0.00	.01	.03	.07	.13	0.00	.00	.01	.03	.05
	0.00	.09	.40	.88	1.49	0.00	.04	.19	.44	.79
13 40.00	0.00	.00	.02	.06	.11	0.00	.00	.01	.02	.05
	0.00	.09	.36	.81	1.39	0.00	.04	.17	.40	.73
13 45.00	0.00	.00	.02	.05	.10	0.00	.00	.01	.02	.04
	0.00	.08	.34	.75	1.30	0.00	.03	.16	.37	.67
13 50.00	0.00	.00	.02	.05	.09	0.00	.00	.01	.02	.04
	0.00	.07	.31	.70	1.21	0.00	.03	.14	.34	.62
13 55.00	0.00	.00	.02	.04	.09	0.00	.00	.01	.02	.03
	0.00	.07	.29	.66	1.14	0.00	.03	.13	.32	.58
14 0.00	0.00	.00	.02	.04	.08	0.00	.00	.01	.02	.03
	0.00	.06	.27	.61	1.07	0.00	.03	.12	.29	.54
14 5.00	0.00	.00	.01	.04	.07	0.00	.00	.01	.01	.03
	0.00	.06	.25	.57	1.00	0.00	.02	.11	.27	.50
14 10.00	0.00	.00	.01	.03	.07	0.00	.00	.01	.01	.03
	0.00	.05	.23	.54	.95	0.00	.02	.10	.25	.47
14 15.00	0.00	.00	.01	.03	.06	0.00	.00	.00	.01	.02
	0.00	.05	.22	.51	.89	0.00	.02	.10	.24	.44
14 20.00	0.00	.00	.01	.03	.06	0.00	.00	.00	.01	.02
	0.00	.05	.20	.48	.84	0.00	.02	.09	.22	.41
14 25.00	0.00	.00	.01	.03	.05	0.00	.00	.00	.01	.02
	0.00	.04	.19	.45	.80	0.00	.02	.08	.21	.38
14 30.00	0.00	.00	.01	.02	.05	0.00	.00	.00	.01	.02
	0.00	.04	.18	.42	.75	0.00	.02	.08	.19	.36
14 35.00	0.00	.00	.01	.02	.05	0.00	.00	.00	.01	.02
	0.00	.04	.17	.40	.71	0.00	.02	.07	.18	.34
14 40.00	0.00	.00	.01	.02	.04	0.00	.00	.00	.01	.02
	0.00	.03	.16	.38	.68	0.00	.01	.07	.17	.32
14 45.00	0.00	.00	.01	.02	.04	0.00	.00	.00	.01	.02
	0.00	.03	.15	.36	.64	0.00	.01	.06	.16	.30
14 50.00	0.00	.00	.01	.02	.04	0.00	.00	.00	.01	.01

	0.00	.03	.14	.34	.61	0.00	.01	.00	.15	.26
14 55.00	0.00	.00	.01	.02	.03	0.00	.00	.00	.01	.01
	0.00	.03	.13	.32	.58	0.00	.01	.00	.14	.27
15 0.00	0.00	.00	.01	.02	.03	0.00	.00	.00	.01	.01
	0.00	.03	.13	.31	.55	0.00	.01	.00	.14	.26
15 5.00	0.00	.00	.01	.02	.03	0.00	.00	.00	.01	.01
	0.00	.03	.12	.29	.53	0.00	.01	.00	.13	.24
15 10.00	0.00	.00	.01	.01	.03	0.00	.00	.00	.01	.01
	0.00	.02	.12	.28	.50	0.00	.01	.00	.12	.23
15 15.00	0.00	.00	.01	.01	.03	0.00	.00	.00	.01	.01
	0.00	.02	.11	.26	.48	0.00	.01	.00	.12	.22
15 20.00	0.00	.00	.00	.01	.03	0.00	.00	.00	.01	.01
	0.00	.02	.10	.25	.46	0.00	.01	.00	.11	.21
15 25.00	0.00	.00	.00	.01	.02	0.00	.00	.00	.00	.01
	0.00	.02	.10	.24	.44	0.00	.01	.00	.10	.20
15 30.00	0.00	.00	.00	.01	.02	0.00	.00	.00	.00	.01
	0.00	.02	.09	.23	.42	0.00	.01	.00	.10	.19
15 35.00	0.00	.00	.00	.01	.02	0.00	.00	.00	.00	.01
	0.00	.02	.09	.22	.40	0.00	.01	.00	.09	.18
15 40.00	0.00	.00	.00	.01	.02	0.00	.00	.00	.00	.01
	0.00	.02	.09	.21	.39	0.00	.01	.00	.09	.17
15 45.00	0.00	.00	.00	.01	.02	0.00	.00	.00	.00	.01
	0.00	.02	.08	.20	.37	0.00	.01	.00	.09	.16
15 50.00	0.00	.00	.00	.01	.02	0.00	.00	.00	.00	.01
	0.00	.02	.08	.19	.36	0.00	.01	.00	.08	.16
15 55.00	0.00	.00	.00	.01	.02	0.00	.00	.00	.00	.01
	0.00	.02	.08	.19	.34	0.00	.01	.00	.08	.15
16 0.00	0.00	.00	.00	.01	.02	0.00	.00	.00	.00	.01
	0.00	.01	.07	.18	.33	0.00	.01	.00	.08	.14
16 5.00	0.00	.00	.00	.01	.02	0.00	.00	.00	.00	.01
	0.00	.01	.07	.17	.32	0.00	.01	.00	.07	.14
16 10.00	0.00	.00	.00	.01	.02	0.00	.00	.00	.00	.01
	0.00	.01	.07	.16	.31	0.00	.01	.00	.07	.13
16 15.00	0.00	.00	.00	.01	.01	0.00	.00	.00	.00	.01
	0.00	.01	.06	.16	.29	0.00	.01	.00	.07	.13
16 20.00	0.00	.00	.00	.01	.01	0.00	.00	.00	.00	.01
	0.00	.01	.06	.15	.28	0.00	.00	.02	.06	.12
16 25.00	0.00	.00	.00	.01	.01	0.00	.00	.00	.00	.01
	0.00	.01	.06	.15	.27	0.00	.00	.02	.06	.12
16 30.00	0.00	.00	.00	.01	.01	0.00	.00	.00	.00	.00
	0.00	.01	.06	.14	.26	0.00	.00	.02	.06	.11
16 35.00	0.00	.00	.00	.01	.01	0.00	.00	.00	.00	.00
	0.00	.01	.05	.14	.25	0.00	.00	.02	.06	.11
16 40.00	0.00	.00	.00	.01	.01	0.00	.00	.00	.00	.00
	0.00	.01	.05	.13	.25	0.00	.00	.02	.05	.10
16 45.00	0.00	.00	.00	.01	.01	0.00	.00	.00	.00	.00
	0.00	.01	.05	.13	.24	0.00	.00	.02	.05	.10
16 50.00	0.00	.00	.00	.01	.01	0.00	.00	.00	.00	.00
	0.00	.01	.05	.12	.23	0.00	.00	.02	.05	.10
16 55.00	0.00	.00	.00	.01	.01	0.00	.00	.00	.00	.00
	0.00	.01	.05	.12	.22	0.00	.00	.02	.05	.09
17 0.00	0.00	.00	.00	.01	.01	0.00	.00	.00	.00	.00
	0.00	.01	.05	.11	.21	0.00	.00	.02	.05	.09
17 5.00	0.00	.00	.00	.00	.01	0.00	.00	.00	.00	.00
	0.00	.01	.04	.11	.21	0.00	.00	.02	.05	.09
17 10.00	0.00	.00	.00	.00	.01	0.00	.00	.00	.00	.00
	0.00	.01	.04	.11	.20	0.00	.00	.02	.04	.08
17 15.00	0.00	.00	.00	.00	.01	0.00	.00	.00	.00	.00
	0.00	.01	.04	.10	.19	0.00	.00	.02	.04	.08
17 20.00	0.00	.00	.00	.00	.01	0.00	.00	.00	.00	.00

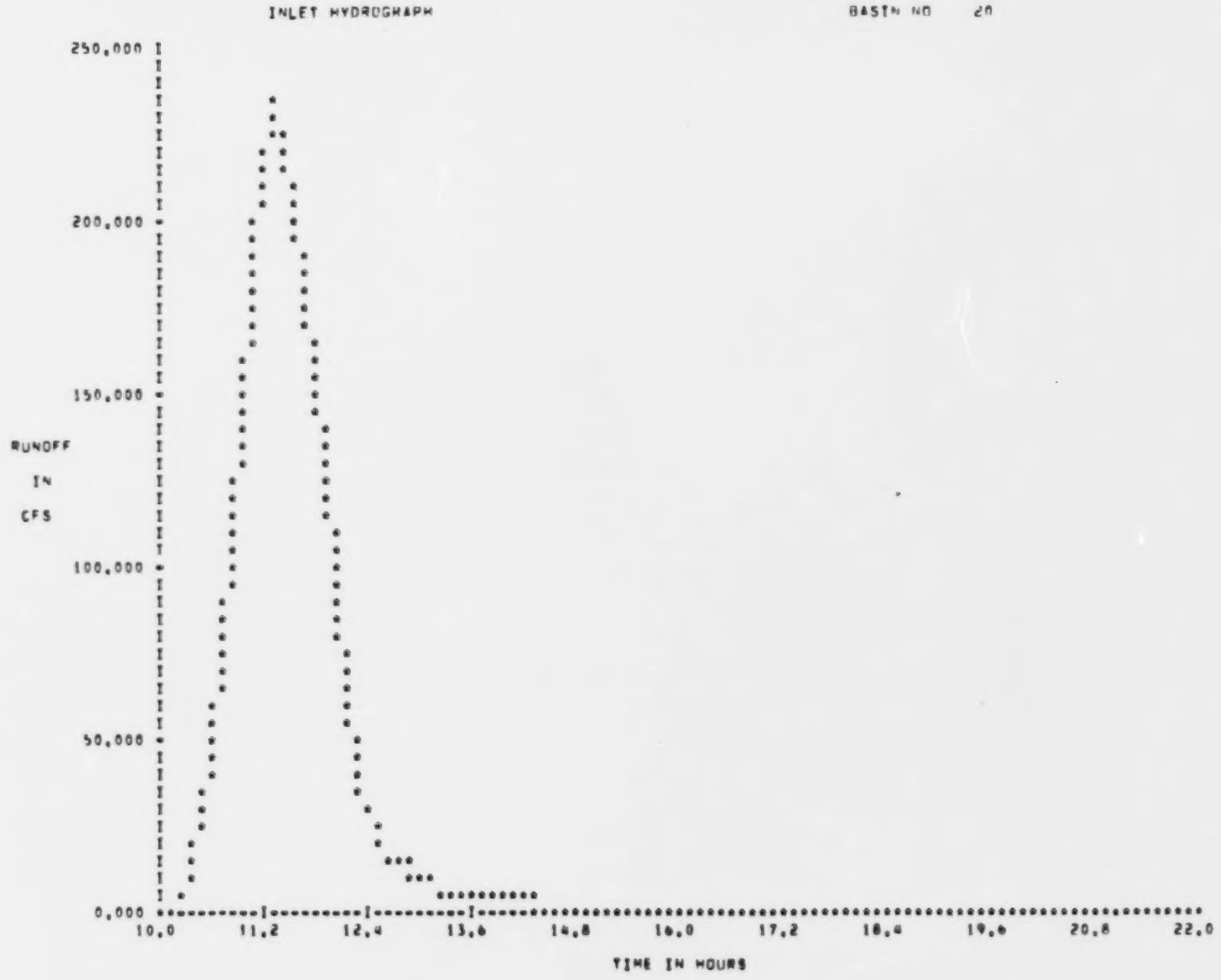
TOTAL RAINFALL (CU FT)	1666896.
TOTAL INFILTRATION (CU FT)	648117.
TOTAL GUTTER FLOW AT INLET (CU FT)	1015454.
TOTAL SURFACE STORAGE AT END OF STORM (CU FT)	0.
ERROR IN CONTINUITY, PERCENTAGE OF RAINFALL.	.19947

RAINFALL HYETOGRAPH

BASIN NO 20



RAINGAGE LEGEND 1 = *


INLET HYDROGRAPH
BASIN NO 20
250,000
200,000
150,000
100,000
50,000
0,000
RUNOFF
IN
CFS
10,0
11,2
12,4
13,6
14,8
16,0
17,2
18,4
19,6
20,8
22,0
TIME IN HOURS

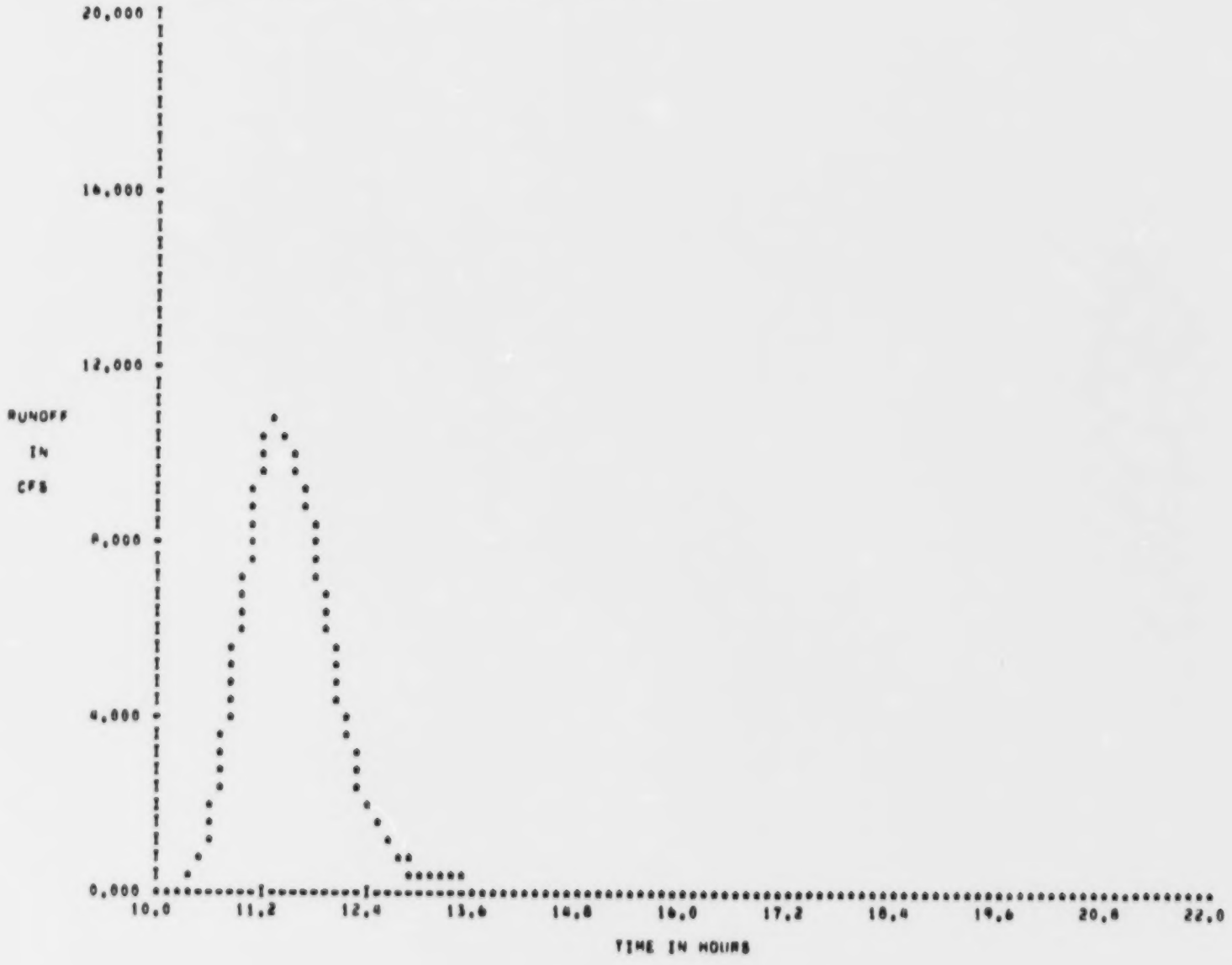
HYDROGRAPHS WILL BE PLOTTED FOR THE FOLLOWING 20 POINTS

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

NSTEPS	NCURVE	NQUAL	TDELT	TZERO	TAREA
144	20	0	300.0	54000.0	229.6

STORED HYDROGRAPHS FOR THE FOLLOWING 20 POINTS

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20


20,000
16,000
12,000
8,000
4,000
0,000
RUNOFF
IN
CFS
10.0
11.2
12.4
13.6
14.8
16.0
17.2
18.4
19.6
20.8
22.0
TIME IN HOURS

NUMBER OF SUBAREAS, KTNUM = 20
NUMBER OF INLETS, NINLTS = 20
TIME INTERVAL (MIN), DT = 5.00
STORM START TIME(HR/MN) = 10/ 0

DRYDAY = 1., CLFREQ= 1., NOPASS = 5

AVERAGE NO. CB/ACRE, CBDEN = 1.
CB CONTENTS BOD (MG/L), CBBOD = 1.
CB STORED VOLUME (GAL), CBVOL = 1.

KNUM	INPUT	KLAND	ASUB	GUTTER
1	1	3	11.48	-0.00
2	2	3	11.48	-0.00
3	3	3	11.48	-0.00
4	4	3	11.48	-0.00
5	5	3	11.48	-0.00
6	6	3	11.48	-0.00
7	7	3	11.48	-0.00
8	8	3	11.48	-0.00
9	9	3	11.48	-0.00
10	10	3	11.48	-0.00
11	11	3	11.48	-0.00
12	12	3	11.48	-0.00
13	13	3	11.48	-0.00
14	14	3	11.48	-0.00
15	15	3	11.48	-0.00
16	16	3	11.48	-0.00
17	17	3	11.48	-0.00
18	18	3	11.48	-0.00
19	19	3	11.48	-0.00
20	20	3	11.48	-0.00

TIME	RUNOFF IN CFS AT SELECTED POINTS				BOD AT SELECTED POINTS				SUSPENDED SOLIDS AT SELECTED POINTS			
	1	2	3	4	1	2	3	4	1	2	3	4
36300.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36600.	.00	.01	.01	.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36900.	.00	.14	.15	.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37200.	.00	.52	.65	.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37500.	.00	1.08	1.53	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37800.	.00	1.68	2.67	3.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38100.	.00	2.25	3.87	5.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38400.	.00	2.78	5.04	6.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38700.	.00	3.29	6.15	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39000.	.01	3.81	7.23	10.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39300.	.29	4.58	8.54	12.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39600.	.91	5.69	10.14	14.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39900.	1.88	7.11	12.01	16.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40200.	3.09	8.50	13.63	18.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40500.	4.29	9.35	14.28	18.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40800.	5.28	9.71	14.09	17.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
41100.	6.00	9.79	13.50	16.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
41400.	6.43	9.59	12.64	15.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
41700.	6.59	9.14	11.57	13.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42000.	6.49	8.47	10.35	11.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42300.	6.18	7.62	9.02	10.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42600.	5.68	6.64	7.61	8.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42900.	5.04	5.57	6.17	6.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
43200.	4.30	4.44	4.73	5.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
43500.	3.49	3.29	3.32	3.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
43800.	2.69	2.27	2.12	2.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44100.	2.00	1.51	1.29	1.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44400.	1.43	.98	.77	.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44700.	.98	.59	.44	.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45000.	.61	.31	.25	.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45300.	.33	.12	.19	.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45600.	.13	.03	.15	.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45900.	0.00	.03	.12	.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46200.	0.00	.02	.10	.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46500.	0.00	.02	.08	.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46800.	0.00	.01	.07	.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
47100.	0.00	.01	.06	.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
47400.	0.00	.01	.05	.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
47700.	0.00	.01	.04	.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48000.	0.00	.01	.04	.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48300.	0.00	.01	.03	.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48600.	0.00	.01	.03	.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48900.	0.00	.01	.03	.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49200.	0.00	.00	.02	.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49500.	0.00	.00	.02	.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49800.	0.00	.00	.02	.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50100.	0.00	.00	.02	.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50400.	0.00	.00	.02	.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50700.	0.00	.00	.01	.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51000.	0.00	.00	.01	.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51300.	0.00	.00	.01	.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51600.	0.00	.00	.01	.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51900.	0.00	.00	.01	.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52200.	0.00	.00	.01	.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52500.	0.00	.00	.01	.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52800.	0.00	.00	.01	.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
53100.	0.00	.00	.01	.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
53400.	0.00	.00	.01	.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

```
   5   6   8   9
   1   2   3   4   7
WATERSHED
SEWER MODEL EVALUATION
   HYPOTHETICAL DATA (WITH REGULATORS)
    2    96 .0935    5.    1 100.
   13    5.
  .01  .01   .00  .00  .00  .00  .00  .00  .00  .00
  .30  .30   .00
    1    1    12 355. 2.94   99.    .1 .001 .001 .062 .184  3.0  .52    .00115
    1    2    38 358. 2.94   99.    .1 .001 .001 .062 .184  3.0  .52    .00115


    2
   12   38
    2
   12   38
    0
    2    2    5.    9   45   96    0
         1.         1.   3
         1          1         1
    1   12    3      2.94       .01
    2   38    3      2.94       .01
TRANSPORT
    0    0
1SEWER MODEL EVALUATION--HYPOTHETICAL DATA--TRANSPORT
   50   96    2    2    6    2    2    3    4
       500.     .0001        1.
    0    0    0    1
  12    0          16
  13   12          19
  14   13          16
  15   63          16
  16   64          16
  17   65          16
  18   66          16
  19   67          16
  20   68          16
  21   69          16
  22   70          16
  23   71          16
  24   72          20    2.66    1.00    59.4    6.0    1.50         25.
  25   24          16
  26   24          16
  38    0          16
  39   38          19
  40   39          16
  41   43          16
  42   64          16
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1.88 223.07		
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100.00	0.00	100.00
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100.00	8.33	91.67
4.69 557.67		
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6.18 724.98		
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100.00	33.33	66.67
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100.00	50.00	50.00
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100.00	58.33	41.67
13.14 1561.49		
100.00	66.67	33.33
100.00	66.67	33.33
14.55 1728.79		
100.00	75.00	25.00
100.00	75.00	25.00
15.95 1896.09		
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100.00	83.33	16.67
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100.00	91.67	8.33
18.77 2230.70		
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100.00	100.00	0.00
17.36 2063.40		
100.00	91.67	8.33
100.00	91.67	8.33

15.45 1896.09
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100.00 83.33 16.67
14.33 1726.79
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100.00 75.00 25.00
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100.00 66.67 33.33
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     100.00        0.00     100.00
     100.00        0.00     100.00
     1.00  225.07
     100.00        0.00     100.00
     100.00        0.00     100.00
     1.00  225.07
     100.00        0.00     100.00
     100.00        0.00     100.00
END PROGRAM
```

ENVIRONMENTAL PROTECTION AGENCY - STORM WATER MANAGEMENT MODEL

DEVELOPED BY METCALF & EDDY, INC.
UNIVERSITY OF FLORIDA
WATER RESOURCES ENGINEERS, INC.

SEPTEMBER 1970

UPDATED BY UNIVERSITY OF FLORIDA

JUNE 1973

TAPE OR DISK ASSIGNMENTS

JIN(1)	JIN(2)	JIN(3)	JIN(4)	JIN(5)	JIN(6)	JIN(7)	JIN(8)	JIN(9)	JIN(10)
0	8	=0	=0	=0	=0	=0	=0	=0	=0
JOUT(1)	JOUT(2)	JOUT(3)	JOUT(4)	JOUT(5)	JOUT(6)	JOUT(7)	JOUT(8)	JOUT(9)	JOUT(10)
8	9	=0	=0	=0	=0	=0	=0	=0	=0

NSCRAT(1)	NSCRAT(2)	NSCRAT(3)	NSCRAT(4)	NSCRAT(5)
1	2	3	4	7

UPDATED BY UNIVERSITY OF FLORIDA

JUNE 1973

WATERSHE PROGRAM CALLED

ENTRY MADE TO RUNOFF MODEL
SEWER MODEL EVALUATION
HYPOTHETICAL DATA (WITH REGULATORS)

INLET NUMBER 2

NUMBER OF TIME STEPS 96

INTEGRATION TIME INTERVAL (MINUTES), 5.00

**** PERCENT OF IMPERVIOUS AREA HAS ZERO DETENTION DEPTH

FOR 13 RAINFALL STEPS, THE TIME INTERVAL IS 5.00 MINUTES

FOR RAINGAGE NUMBER 1 RAINFALL HISTORY IN INCHES PER HOUR

.01	.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00							

SUBAREA NUMBER	GUTTER OR MANHOLE	WIDTH (FT)	AREA (AC)	PERCENT IMPERV.	SLOPE (FT/FT)	RESISTANCE FACTOR IMPERV.	RESISTANCE FACTOR PERV.	SURFACE STORAGE (IN) IMPERV.	SURFACE STORAGE (IN) PERV.	INFILTRATION RATE (IN/HR) MAXIMUM	INFILTRATION RATE (IN/HR) MINIMUM	INFILTRATION RATE (IN/HR) DECAY RATE	GAGE NO
1	12	35A.	2.9	99.0	.1000	.001	.001	.062	.1A4	5.00	.52	.00115	1
2	5A	35A.	2.9	99.0	.1000	.001	.001	.062	.1A4	5.00	.52	.00115	1

TOTAL NUMBER OF SUBCATCHMENTS, 2

TOTAL TRIBUTARY AREA (ACRES), 5.88

GUTTER NUMBER	GUTTER CONNECTION	WIDTH (FT)	LENGTH (FT)	SLOPE (FT/FT)	SIDE SLOPES L	R	MANNING n	DEPRESSION (IN)

TOTAL NUMBER OF GUTTERS/PIPES, 0

ASTERISK (*) DENOTES CIRCULAR PIPE, DIAMETER=WIDTH.

ARRANGEMENT OF SUBCATCHMENTS AND GUTTERS/PIPES

GUTTER INLET	TRIBUTARY GUTTER/PIPE	TRIBUTARY SUBAREA
	TRIBUTARY GUTTER-PIPE-MANHOLE	TRIBUTARY SUBAREA

2
12 38

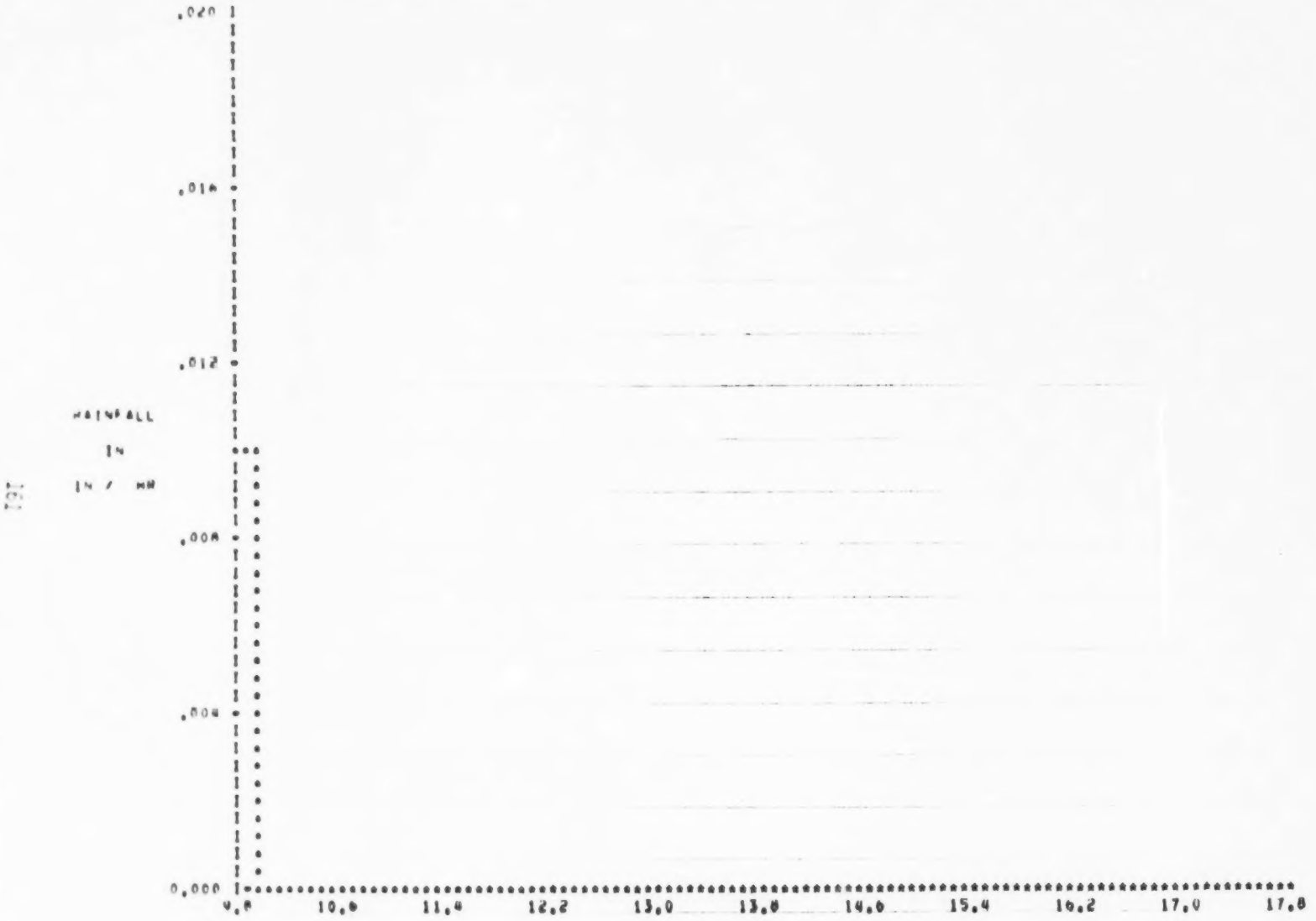
HYDROGRAPHS WILL BE STORED FOR THE FOLLOWING 2 POINTS
12 38

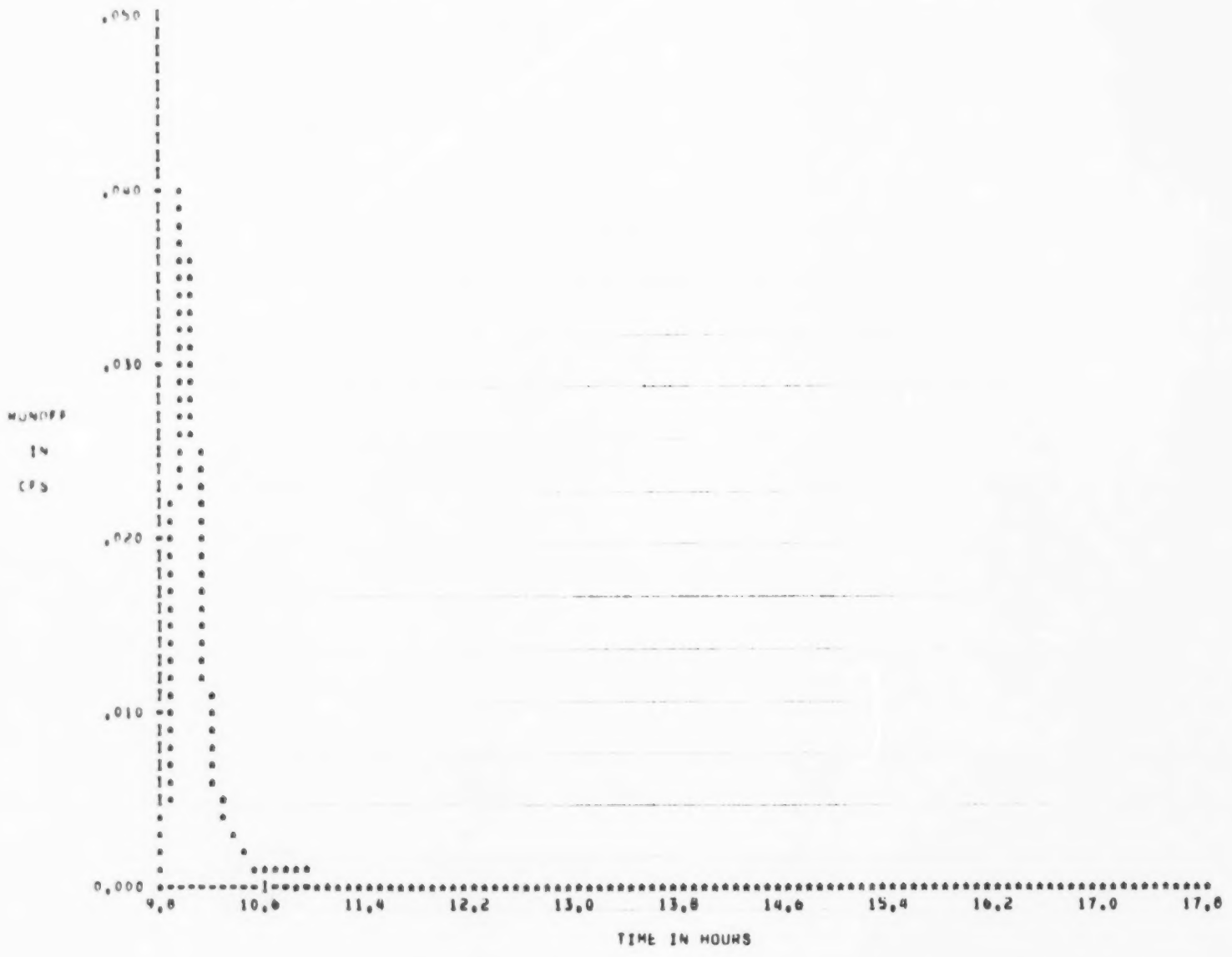
HYDROGRAPHS ARE LISTED FOR THE FOLLOWING 2 POINTS

	TIME	12	38
9	50.00	.00	.00
9	55.00	.02	.02
10	0.00	.02	.02
10	5.00	.01	.01
10	10.00	.00	.00
10	15.00	.00	.00
10	20.00	.00	.00
10	25.00	.00	.00
10	30.00	.00	.00
10	35.00	.00	.00
10	40.00	.00	.00
10	45.00	.00	.00
10	50.00	.00	.00
10	55.00	.00	.00
11	0.00	.00	.00
11	5.00	.00	.00
11	10.00	.00	.00
11	15.00	.00	.00
11	20.00	.00	.00
11	25.00	.00	.00
11	30.00	.00	.00
11	35.00	.00	.00
11	40.00	.00	.00
11	45.00	.00	.00
11	50.00	.00	.00
11	55.00	.00	.00
12	0.00	.00	.00
12	5.00	.00	.00
12	10.00	.00	.00
12	15.00	.00	.00
12	20.00	.00	.00
12	25.00	.00	.00
12	30.00	.00	.00
12	35.00	.00	.00
12	40.00	.00	.00
12	45.00	.00	.00
12	50.00	.00	.00
12	55.00	.00	.00
13	0.00	.00	.00
13	5.00	.00	.00
13	10.00	.00	.00
13	15.00	.00	.00
13	20.00	.00	.00
13	25.00	.00	.00
13	30.00	.00	.00
13	35.00	.00	.00
13	40.00	.00	.00
13	45.00	.00	.00
13	50.00	.00	.00
13	55.00	.00	.00
14	0.00	.00	.00
14	5.00	.00	.00
14	10.00	.00	.00
14	15.00	.00	.00
14	20.00	.00	.00
14	25.00	.00	.00

TOTAL RAINFALL (CU FT)	56.
TOTAL INFILTRATION (CU FT)	0.
TOTAL GUTTER FLOW AT INLET (CU FT)	55.
TOTAL SURFACE STORAGE AT END OF STORM (CU FT)	0.
ERROR IN CONTINUITY, PERCENTAGE OF RAINFALL,	.17408

RAINFALL HYETOGRAPH BASIN NO 2




INLET HYDROGRAPH
BASIN NO 2
.050
.040
.030
.020
.010
0.000
RUNOFF
IN
CFS
9.8
10.6
11.4
12.2
13.0
13.8
14.6
15.4
16.2
17.0
17.8
TIME IN HOURS

```
NUMBER OF SUBAREAS, KTNUM =    2
NUMBER OF INLETS,  NINLTS =    2
TIME INTERVAL (MIN),    DT =  5.00
STORM START TIME(HR/MN) =  9/45

DRYDAY =          1., CLFREQ=          1., NUPASS =     3

AVERAGE NO. CB/ACRE,     CBDEN =          1.
CB CONTENTS BOD (MG/L), CBBOD =          1.
CB STORED VOLUME (GAL), CBVOL =          1.

KNUM/INPUT/KLAND     ASUB     GUTTER
   1   12    3       2.94       .01
   2   38    3       2.94       .01
```

TIME	DISSOLVED OXYGEN IN CFS AT SELECTED POINTS				BOD AT SELECTED POINTS				SUSPENDED SOLIDS AT SELECTED POINTS			
	12	38			12	38			12	38		
35400.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
35700.	.02	.02	0.00	0.00	.00	.00	45056.50	0.00	.01	.01	0.00	0.00
36000.	.02	.02	0.00	0.00	.00	.00	45056.50	0.00	.01	.01	0.00	0.00
36300.	.01	.01	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
36600.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
36900.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
37200.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
37500.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
37800.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
38100.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
38400.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
38700.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
39000.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
39300.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
39600.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
39900.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
40200.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
40500.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
40800.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
41100.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
41400.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
41700.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
42000.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
42300.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
42600.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
42900.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
43200.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
43500.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
43800.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
44100.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
44400.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
44700.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
45000.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
45300.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
45600.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
45900.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
46200.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
46500.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
46800.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
47100.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
47400.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
47700.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
48000.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
48300.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
48600.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
48900.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
49200.	.00	.00	0.00	0.00	.00	.00	45056.50	0.00	.00	.00	0.00	0.00
49500.	.00	.00	0.00	0.00	0.00	0.00	45056.50	0.00	0.00	0.00	0.00	0.00
49800.	.00	.00	0.00	0.00	0.00	0.00	45056.50	0.00	0.00	0.00	0.00	0.00
50100.	.00	.00	0.00	0.00	0.00	0.00	45056.50	0.00	0.00	0.00	0.00	0.00
50400.	.00	.00	0.00	0.00	0.00	0.00	45056.50	0.00	0.00	0.00	0.00	0.00
50700.	.00	.00	0.00	0.00	0.00	0.00	45056.50	0.00	0.00	0.00	0.00	0.00
51000.	.00	.00	0.00	0.00	0.00	0.00	45056.50	0.00	0.00	0.00	0.00	0.00
51300.	.00	.00	0.00	0.00	0.00	0.00	45056.50	0.00	0.00	0.00	0.00	0.00
51600.	.00	.00	0.00	0.00	0.00	0.00	45056.50	0.00	0.00	0.00	0.00	0.00
51900.	.00	.00	0.00	0.00	0.00	0.00	45056.50	0.00	0.00	0.00	0.00	0.00
52200.	.00	.00	0.00	0.00	0.00	0.00	45056.50	0.00	0.00	0.00	0.00	0.00
52500.	.00	.00	0.00	0.00	0.00	0.00	45056.50	0.00	0.00	0.00	0.00	0.00

TOTAL QUANTITIES TRANSFERRED TO THE SEWER FROM THE INDICATED AREAS DURING 96 TIME STEPS

KLAND	TYPE OF LAND USE
1	SINGLE FAMILY RESIDENTIAL
2	MULTI-FAMILY RESIDENTIAL
3	COMMERCIAL
4	INDUSTRIAL
5	UNDEVELOPED OR PARKLAND

INPUT	LAND USE (KLAND)	AREA ACRES	GUTTER LENGTH HUNDRED FEET	DUST & DIRT PRIOR TO STORM, LBS.	BOD PRIOR TO STORM, LBS. SOLUBLE	BOD PRIOR TO STORM, LBS. NON-SOLUBLE	BOD PRIOR TO STORM, LBS. IN CATCHBASIN	AMOUNT TRANSFERRED: SUSPENDED SOLIDS (POPSS) POUNDS	AMOUNT TRANSFERRED: FIVE DAY BOD (CHINC) + (POP) POUNDS	AMOUNT TRANSFERRED: FIVE DAY BOD = (CBASIM) POUNDS	AVERAGE COLIFORM CONC. (CCOLI) MPN/100ML
12	5	2.94	.01	.03	.00	.00	.00	.02 59.8 %	.00 100.0 %	.00 51.9 %	.00 52.6 %	3.29E+02
5R	5	2.94	.01	.03	.00	.00	.00	.02 59.8 %	.00 100.0 %	.00 51.9 %	.00 52.6 %	3.29E+02
TOTAL TRANSFERRED FROM ALL INLET AREAS DURING 96 TIMESTEPS ENDING AT 17.8 HRS., 0 DAY(S) LATER								.04 59.8 %	.00 100.0 %	.00 51.9 %	.00 52.6 %	

UPDATED BY UNIVERSITY OF FLORIDA

JUNE 1975

TRANSPOR PROGRAM CALLED

INPUT DATA FOR STORAGE UNIT NO. 1 FOLLOWS

CHARACTERISTICS OF STORAGE UNIT NUMBER 1 ARE

ELEMENT NUMBER = 15 U/S ARE 12, =0, =0 OUTLET TYPE = 1
STORAGE MODE = 1 STORAGE TYPE = 5

IPOL = 1, IPRINT = 1, ICOST = 0

MAN-MADE RESERVOIR, WITH MAX, DEPTH = 11.00 FT., AND CHARACTERISTICS

BASE AREA = 15. SQ.FT., BASE CIRCUMF. = 13. FT., COT(SIDESLOPE) = 0.00000

RESERVOIR OUTLET CONTROL BY GRAVITY WITH FIXED ORIFICE
ORIFICE AREA*CD = 1.680 SQ.FT, DT = 300.00 SEC, (FROM INPUT HYDROGRAPH)
NOTE..
ORIFICE CENTERLINE ASSUMED AT TANK DEPTH = 0, WHEN STORAGE = 0

DEPTH(FT)	STOR(CU.FT)	DEPTH(FT)	STOR(CU.FT)	DEPTH(FT)	STOR(CU.FT)	DEPTH(FT)	STOR(CU.FT)
0.00	0.	1.10	14.	2.20	28.	3.30	41.
4.40	55.	5.50	69.	6.60	83.	7.70	97.
8.80	111.	9.90	124.	11.00	138.		

THE TWO SETS OF 11 STORAGE PARAMETERS, FOR DT = 300.000 SEC,, ARE,,

ATEMM,,	0.	2387.	3384.	4152.	4802.	5376.	5897.	6376.	6824.	7245.	7644.
AO2012,,	0.	2373.	3357.	4111.	4747.	5307.	5814.	6280.	6715.	7120.	7506.

INPUT DATA FOR STORAGE UNIT NO. 2 FOLLOWS

CHARACTERISTICS OF STORAGE UNIT NUMBER 2 ARE

ELEMENT NUMBER = 39 U/S ARE 38, =0, =0 OUTLET TYPE = 1
STORAGE MODE = 1 STORAGE TYPE = 3

IPOL = 1, IPRINT = 1, ICOST = 0

MAN-MADE RESERVOIR, WITH MAX. DEPTH = 26.00 FT., AND CHARACTERISTICS

BASE AREA = 452. SQ.FT., BASE CIRCUMF. = 75. FT., COT(SIDESLOPE) = 0.00000

RESERVOIR OUTLET CONTROL BY GRAVITY WITH FIXED ORIFICE
ORIFICE AREA*CD = 67.800 SQ.FT. DT = 300.00 SEC. (FROM INPUT HYDROGRAPH)
NOTE..
ORIFICE CENTERLINE ASSUMED AT TANK DEPTH = 0, WHEN STORAGE = 0

DEPTH(FT)	STOR(CU.FT)	DEPTH(FT)	STOR(CU.FT)	DEPTH(FT)	STOR(CU.FT)	DEPTH(FT)	STOR(CU.FT)
0.00	0.	2.60	1176.	5.20	2351.	7.80	3527.
10.40	4702.	13.00	5878.	15.60	7054.	18.20	8229.
20.80	9405.	23.40	10581.	26.00	11756.		

THE TWO SETS OF 11 STORAGE PARAMETERS, FOR DT = 300.000 SEC., ARE..

ATERM..	0.	132774.	188459.	231462.	267899.	300141.	329403.	356406.	381823.	405537.	427907.
A02DT2..	0.	131598.	186108.	227935.	263197.	294263.	322340.	348177.	372218.	394795.	416151.

ISEWER MODEL EVALUATION--HYPOTHETICAL DATA--TRANSPORT

EXTERNAL ELEMENT NUMBER	TYPE	DESCRIPTION	UPSTREAM ELEMENTS 1	2	3	INTERNAL ELEMENT NUMBER	ELEMENT COMPUTATION SEQUENCE EXTERNAL NUMBER	INTERNAL NUMBER	INTERNAL UPSTREAM ELEMENT NUMBERS		
12	16	MANHOLE	0	=0	=0	1	12	1	51	51	51
13	19	STORAGE UNIT	12	=0	=0	2	13	2	1	51	51
14	16	MANHOLE	13	=0	=0	3	14	3	2	51	51
15	16	MANHOLE	63	=0	=0	4	38	16	51	51	51
16	16	MANHOLE	64	=0	=0	5	39	17	16	51	51
17	16	MANHOLE	65	=0	=0	6	40	18	17	51	51
18	16	MANHOLE	66	=0	=0	7	63	31	3	51	51
19	16	MANHOLE	67	=0	=0	8	15	4	31	51	51
20	16	MANHOLE	68	=0	=0	9	64	32	4	51	51
21	16	MANHOLE	69	=0	=0	10	16	5	32	51	51
22	16	MANHOLE	70	=0	=0	11	65	33	5	51	51
23	16	MANHOLE	71	=0	=0	12	17	6	33	51	51
24	20	FLOW DIVIDER	72	=0	=0	13	66	34	6	51	51
25	16	MANHOLE	24	=0	=0	14	18	7	34	51	51
26	16	MANHOLE	24	=0	=0	15	67	35	7	51	51
38	16	MANHOLE	0	=0	=0	16	19	8	35	51	51
39	19	STORAGE UNIT	38	=0	=0	17	68	36	8	51	51
40	16	MANHOLE	39	=0	=0	18	20	9	36	51	51
41	16	MANHOLE	83	=0	=0	19	69	37	9	51	51
42	16	MANHOLE	84	=0	=0	20	21	10	37	51	51
43	16	MANHOLE	85	=0	=0	21	70	38	10	51	51
44	16	MANHOLE	86	=0	=0	22	22	11	38	51	51
45	16	MANHOLE	87	=0	=0	23	71	39	11	51	51
46	16	MANHOLE	88	=0	=0	24	23	12	39	51	51
47	16	MANHOLE	89	=0	=0	25	72	40	12	51	51
48	16	MANHOLE	90	=0	=0	26	24	13	40	51	51
49	16	MANHOLE	91	=0	=0	27	25	14	13	51	51
50	20	FLOW DIVIDER	92	=0	=0	28	26	15	13	51	51
51	16	MANHOLE	50	=0	=0	29	83	41	15	51	51
52	16	MANHOLE	50	=0	=0	30	41	19	41	51	51
63	1	CIRCULAR SHAPED	14	=0	=0	31	84	42	19	51	51
64	1	CIRCULAR SHAPED	15	=0	=0	32	42	20	42	51	51
65	1	CIRCULAR SHAPED	16	=0	=0	33	85	43	20	51	51
66	1	CIRCULAR SHAPED	17	=0	=0	34	43	21	43	51	51
67	1	CIRCULAR SHAPED	18	=0	=0	35	86	44	21	51	51
68	1	CIRCULAR SHAPED	19	=0	=0	36	44	22	44	51	51
69	1	CIRCULAR SHAPED	20	=0	=0	37	87	45	22	51	51
70	1	CIRCULAR SHAPED	21	=0	=0	38	45	23	45	51	51
71	1	CIRCULAR SHAPED	22	=0	=0	39	88	46	23	51	51
72	1	CIRCULAR SHAPED	23	=0	=0	40	46	24	46	51	51
83	1	CIRCULAR SHAPED	40	=0	=0	41	89	47	24	51	51
84	1	CIRCULAR SHAPED	41	=0	=0	42	47	25	47	51	51
85	1	CIRCULAR SHAPED	42	=0	=0	43	90	48	25	51	51
86	1	CIRCULAR SHAPED	43	=0	=0	44	48	26	48	51	51
87	1	CIRCULAR SHAPED	44	=0	=0	45	91	49	26	51	51
88	1	CIRCULAR SHAPED	45	=0	=0	46	49	27	49	51	51
89	1	CIRCULAR SHAPED	46	=0	=0	47	92	50	27	51	51
90	1	CIRCULAR SHAPED	47	=0	=0	48	50	28	50	51	51
91	1	CIRCULAR SHAPED	48	=0	=0	49	51	29	28	51	51
92	1	CIRCULAR SHAPED	49	=0	=0	50	52	30	28	51	51

ISEWER MODEL EVALUATION--HYPOTHETICAL DATA--TRANSPORT

NUMBER OF ELEMENTS= 50
NUMBER OF TIME INT= 96
TIME INTERVAL= 300.0 SECONDS.

ELEMENT PARAMETERS

EXT. ELE. NUM.	TYPE	DESCRIPTION	SLOPE (FT/FT)	DISTANCE (FT)	MANNING ROUGHNESS	GEOM1 (FT)	GEOM2 (FT)	GEOM3 (FT)	NUMBER OF BARRELS	AREA (SQ.FT)	QFULL (CFS)	QMAX (CFS)	SUPER-CRITICAL FLOW WHEN LESS THAN 95% FULL?
12	16	MANHOLE	-0.00000	-0.00	-0.0000	0.000	-0.000	-0.000	1.0	0.000	0.000	0.000	
13	19	STORAGE UNIT	-0.00000	-0.00	-0.0000	0.000	-0.000	-0.000	1.0	0.000	0.000	0.000	
14	16	MANHOLE	-0.00000	-0.00	-0.0000	0.000	-0.000	-0.000	1.0	0.000	0.000	0.000	
15	16	MANHOLE	-0.00000	-0.00	-0.0000	0.000	-0.000	-0.000	1.0	0.000	0.000	0.000	
16	16	MANHOLE	-0.00000	-0.00	-0.0000	0.000	-0.000	-0.000	1.0	0.000	0.000	0.000	
17	16	MANHOLE	-0.00000	-0.00	-0.0000	0.000	-0.000	-0.000	1.0	0.000	0.000	0.000	
18	16	MANHOLE	-0.00000	-0.00	-0.0000	0.000	-0.000	-0.000	1.0	0.000	0.000	0.000	
19	16	MANHOLE	-0.00000	-0.00	-0.0000	0.000	-0.000	-0.000	1.0	0.000	0.000	0.000	
20	16	MANHOLE	-0.00000	-0.00	-0.0000	0.000	-0.000	-0.000	1.0	0.000	0.000	0.000	
21	16	MANHOLE	-0.00000	-0.00	-0.0000	0.000	-0.000	-0.000	1.0	0.000	0.000	0.000	
22	16	MANHOLE	-0.00000	-0.00	-0.0000	0.000	-0.000	-0.000	1.0	0.000	0.000	0.000	
23	16	MANHOLE	-0.00000	-0.00	-0.0000	0.000	-0.000	-0.000	1.0	0.000	0.000	0.000	
24	20	FLOW DIVIDER	59.40000	2.66	0.0000	1.000	1.500	25.000	1.0	0.000	0.000	0.000	
25	16	MANHOLE	-0.00000	-0.00	-0.0000	0.000	-0.000	-0.000	1.0	0.000	0.000	0.000	
26	16	MANHOLE	-0.00000	-0.00	-0.0000	0.000	-0.000	-0.000	1.0	0.000	0.000	0.000	
38	16	MANHOLE	-0.00000	-0.00	-0.0000	0.000	-0.000	-0.000	1.0	0.000	0.000	0.000	
39	19	STORAGE UNIT	-0.00000	-0.00	-0.0000	0.000	-0.000	-0.000	1.0	0.000	0.000	0.000	
40	16	MANHOLE	-0.00000	-0.00	-0.0000	0.000	-0.000	-0.000	1.0	0.000	0.000	0.000	
41	16	MANHOLE	-0.00000	-0.00	-0.0000	0.000	-0.000	-0.000	1.0	0.000	0.000	0.000	
42	16	MANHOLE	-0.00000	-0.00	-0.0000	0.000	-0.000	-0.000	1.0	0.000	0.000	0.000	
43	16	MANHOLE	-0.00000	-0.00	-0.0000	0.000	-0.000	-0.000	1.0	0.000	0.000	0.000	
44	16	MANHOLE	-0.00000	-0.00	-0.0000	0.000	-0.000	-0.000	1.0	0.000	0.000	0.000	
45	16	MANHOLE	-0.00000	-0.00	-0.0000	0.000	-0.000	-0.000	1.0	0.000	0.000	0.000	
46	16	MANHOLE	-0.00000	-0.00	-0.0000	0.000	-0.000	-0.000	1.0	0.000	0.000	0.000	
47	16	MANHOLE	-0.00000	-0.00	-0.0000	0.000	-0.000	-0.000	1.0	0.000	0.000	0.000	
48	16	MANHOLE	-0.00000	-0.00	-0.0000	0.000	-0.000	-0.000	1.0	0.000	0.000	0.000	
49	16	MANHOLE	-0.00000	-0.00	-0.0000	0.000	-0.000	-0.000	1.0	0.000	0.000	0.000	
50	20	FLOW DIVIDER	********	235.74	30.0000	0.000	9.000	51.000	1.0	0.000	0.000	0.000	
51	16	MANHOLE	-0.00000	-0.00	-0.0000	0.000	-0.000	-0.000	1.0	0.000	0.000	0.000	
52	16	MANHOLE	-0.00000	-0.00	-0.0000	0.000	-0.000	-0.000	1.0	0.000	0.000	0.000	
63	1	CIRCULAR SHAPED	.00500	1000.00	.0100	2.000	-0.000	-0.000	1.0	3.142	20.851	22.519	NO
64	1	CIRCULAR SHAPED	.00500	1000.00	.0100	2.000	-0.000	-0.000	1.0	3.142	20.851	22.519	NO
65	1	CIRCULAR SHAPED	.00500	1000.00	.0100	2.000	-0.000	-0.000	1.0	3.142	20.851	22.519	NO
66	1	CIRCULAR SHAPED	.00500	1000.00	.0100	2.000	-0.000	-0.000	1.0	3.142	20.851	22.519	NO
67	1	CIRCULAR SHAPED	.00500	1000.00	.0100	2.000	-0.000	-0.000	1.0	3.142	20.851	22.519	NO
68	1	CIRCULAR SHAPED	.00500	1000.00	.0100	2.000	-0.000	-0.000	1.0	3.142	20.851	22.519	NO
69	1	CIRCULAR SHAPED	.00500	1000.00	.0100	2.000	-0.000	-0.000	1.0	3.142	20.851	22.519	NO
70	1	CIRCULAR SHAPED	.00500	1000.00	.0100	2.000	-0.000	-0.000	1.0	3.142	20.851	22.519	NO
71	1	CIRCULAR SHAPED	.00500	1000.00	.0100	2.000	-0.000	-0.000	1.0	3.142	20.851	22.519	NO
72	1	CIRCULAR SHAPED	.00500	1000.00	.0100	2.000	-0.000	-0.000	1.0	3.142	20.851	22.519	NO
83	1	CIRCULAR SHAPED	.00500	1000.00	.0100	12.000	-0.000	-0.000	1.0	113.097	2078.589	2078.878	NO
84	1	CIRCULAR SHAPED	.00500	1000.00	.0100	12.000	-0.000	-0.000	1.0	113.097	2078.589	2078.878	NO
85	1	CIRCULAR SHAPED	.00500	1000.00	.0100	12.000	-0.000	-0.000	1.0	113.097	2078.589	2078.878	NO
86	1	CIRCULAR SHAPED	.00500	1000.00	.0100	12.000	-0.000	-0.000	1.0	113.097	2078.589	2078.878	NO
87	1	CIRCULAR SHAPED	.00500	1000.00	.0100	12.000	-0.000	-0.000	1.0	113.097	2078.589	2078.878	NO
88	1	CIRCULAR SHAPED	.00500	1000.00	.0100	12.000	-0.000	-0.000	1.0	113.097	2078.589	2078.878	NO
89	1	CIRCULAR SHAPED	.00500	1000.00	.0100	12.000	-0.000	-0.000	1.0	113.097	2078.589	2078.878	NO

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 90    1   CIRCULAR SHAPED   .00500  1000.00    .0100   12.000 -0.000 -0.000   1.0  113.097 2478.589 2676.876     NO
 91    1   CIRCULAR SHAPED   .00500  1000.00    .0100   12.000 -0.000 -0.000   1.0  113.097 2478.589 2676.876     NO
 92    1   CIRCULAR SHAPED   .00500  1000.00    .0100   12.000 -0.000 -0.000   1.0  113.097 2478.589 2676.876     NO

EPSILON =  .000100     NO. OF ITERATIONS IN ROUTING ROUTINE =    4


HYDROGRAPHS AND POLLUTOGRAPHS PROVIDED TO SUBSEQUENT PROGRAMS FOR THE FOLLOWING ELEMENTS

  24   25   26   50   51   52
```

INITIAL MED OF SOLIDS (LBS) IN SEWER DUE TO
1.0 DAYS OF DRY WEATHER PRIOR TO STORM

ELEMENT NUMBER	SOLIDS IN BOTTOM (LBS)
63	0.00000
64	0.00000
65	0.00000
66	0.00000
67	0.00000
68	0.00000
69	0.00000
70	0.00000
71	0.00000
72	0.00000
83	0.00000
84	0.00000
85	0.00000
86	0.00000
87	0.00000
88	0.00000
89	0.00000
90	0.00000
91	0.00000
92	0.00000

ELEMENT FLOWS, AREAS, AND CONCENTRATIONS ARE INITIALIZED TO DRY WEATHER FLOW AND INFILTRATION VALUES.

ELE. NO.	TYPE	FLOW (CFS)	AREA (SQ. FT.)	INIT. VEL. (FPS)	BOD (LBS/CF)	S.S. (LBS/CF)	FECAL. (MPN/ML)	(FECAL NO.)
12	16	0.000	0.000	0.0000	0.0000	0.0000	0.	
13	19	0.000	0.000	0.0000	0.0000	0.0000	0.	
14	16	0.000	0.000	0.0000	0.0000	0.0000	0.	
38	16	0.000	0.000	0.0000	0.0000	0.0000	0.	
39	19	0.000	0.000	0.0000	0.0000	0.0000	0.	
40	16	0.000	0.000	0.0000	0.0000	0.0000	0.	
63	1	0.000	0.000	0.0000	0.0000	0.0000	0.	
15	16	0.000	0.000	0.0000	0.0000	0.0000	0.	
64	1	0.000	0.000	0.0000	0.0000	0.0000	0.	
16	16	0.000	0.000	0.0000	0.0000	0.0000	0.	
65	1	0.000	0.000	0.0000	0.0000	0.0000	0.	
17	16	0.000	0.000	0.0000	0.0000	0.0000	0.	
66	1	0.000	0.000	0.0000	0.0000	0.0000	0.	
18	16	0.000	0.000	0.0000	0.0000	0.0000	0.	
67	1	0.000	0.000	0.0000	0.0000	0.0000	0.	
19	16	0.000	0.000	0.0000	0.0000	0.0000	0.	
68	1	0.000	0.000	0.0000	0.0000	0.0000	0.	
20	16	0.000	0.000	0.0000	0.0000	0.0000	0.	
69	1	0.000	0.000	0.0000	0.0000	0.0000	0.	
21	16	0.000	0.000	0.0000	0.0000	0.0000	0.	
70	1	0.000	0.000	0.0000	0.0000	0.0000	0.	
22	16	0.000	0.000	0.0000	0.0000	0.0000	0.	
71	1	0.000	0.000	0.0000	0.0000	0.0000	0.	
23	16	0.000	0.000	0.0000	0.0000	0.0000	0.	
72	1	0.000	0.000	0.0000	0.0000	0.0000	0.	
24	20	0.000	0.000	0.0000	0.0000	0.0000	0.	
25	16	0.000	0.000	0.0000	0.0000	0.0000	0.	
26	16	0.000	0.000	0.0000	0.0000	0.0000	0.	
83	1	0.000	0.000	0.0000	0.0000	0.0000	0.	
41	16	0.000	0.000	0.0000	0.0000	0.0000	0.	
84	1	0.000	0.000	0.0000	0.0000	0.0000	0.	
42	16	0.000	0.000	0.0000	0.0000	0.0000	0.	
85	1	0.000	0.000	0.0000	0.0000	0.0000	0.	
43	16	0.000	0.000	0.0000	0.0000	0.0000	0.	
86	1	0.000	0.000	0.0000	0.0000	0.0000	0.	
44	16	0.000	0.000	0.0000	0.0000	0.0000	0.	
87	1	0.000	0.000	0.0000	0.0000	0.0000	0.	
45	16	0.000	0.000	0.0000	0.0000	0.0000	0.	
88	1	0.000	0.000	0.0000	0.0000	0.0000	0.	
46	16	0.000	0.000	0.0000	0.0000	0.0000	0.	
89	1	0.000	0.000	0.0000	0.0000	0.0000	0.	
47	16	0.000	0.000	0.0000	0.0000	0.0000	0.	
90	1	0.000	0.000	0.0000	0.0000	0.0000	0.	
48	16	0.000	0.000	0.0000	0.0000	0.0000	0.	
91	1	0.000	0.000	0.0000	0.0000	0.0000	0.	
49	16	0.000	0.000	0.0000	0.0000	0.0000	0.	
92	1	0.000	0.000	0.0000	0.0000	0.0000	0.	
50	20	0.000	0.000	0.0000	0.0000	0.0000	0.	
51	16	0.000	0.000	0.0000	0.0000	0.0000	0.	
52	16	0.000	0.000	0.0000	0.0000	0.0000	0.	

STORAGE SOLUTION FOR 96 TIME-STEPS FOLLOWS, ON A STEP-BY-STEP BASIS

/\ STP NO	TIME (MIN)	INFLOW (CFS)	OUTFLOW (CFS)	STORAGE (CU.FT)	DEPTH (FT.)	IN- BOD (LB)	SS	STOR- BOD (LB)	SS	BOD (MG/L)	SS OUT- BOD (MG/L)	SS	BOD (LB)	SS	BOD (MG/L)	SS (MG/L)	J	L
1 0	0.0	0.0	.6	10.	.80													
UNIT HAS FLOODED - HYDROGRAPH TERMINATED																		
2 1	5.0	223.1	298.8	400.	.89	417.7	0.0	-283.5	0.0********		0.0	701.2	0.0	100.0		0.0	1	1
COLIN= 1.89E+09 SCOL(MPN)= 1.29E+09 CONC= 1.13E+04 COLOUT= 3.18E+09 CONC= 1.99E+02																		

TIME	QFULLS FROM ELEMENT 1 TO NE.														
300.00	0.00********	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	298.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	20.85	20.85	20.85	20.85	20.85	20.85	20.85	20.85	20.85	20.85	2478.59	2478.59	2478.59	2478.59	2478.59
	2478.59	2478.59	2478.59	2478.59	2478.59										
2 2	10.0	223.1	148.7	199.	.44	417.7	0.0	-145.5	0.0********		0.0	279.7	0.0	100.0		0.0	1	2
COLIN= 1.89E+09 SCOL(MPN)= 0.00E+00 CONC= 1.17E+04 COLOUT= 1.27E+09 CONC= 1.00E+02																		

TIME	QFULLS FROM ELEMENT 1 TO NE.														
600.00	0.00********	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	148.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	20.85	20.85	20.85	20.85	20.85	20.85	20.85	20.85	20.85	20.85	2498.71	2478.59	2530.99	2622.91	2631.86
	2485.21	2743.64	2945.22	2671.14	2593.67										
2 3	15.0	223.1	296.1	397.	.88	417.7	0.0	-282.3	0.0********		0.0	554.5	0.0	100.2		0.0	2	3
COLIN= 1.89E+09 SCOL(MPN)= 1.28E+09 CONC= 1.14E+04 COLOUT= 2.52E+09 CONC= 1.00E+02																		

TIME	QFULLS FROM ELEMENT 1 TO NE.														
900.00	0.00********	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	296.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	20.85	20.85	20.85	20.85	20.85	20.85	20.85	20.85	20.85	20.85	2728.91	2478.59	2685.13	2695.53	2698.29
	2479.00	2581.94	2644.03	2628.42	2493.91										
2 4	20.0	223.1	151.3	203.	.45	417.7	0.0	-147.9	0.0********		0.0	283.3	0.0	100.2		0.0	3	4
COLIN= 1.89E+09 SCOL(MPN)= 0.71E+08 CONC= 1.17E+04 COLOUT= 1.29E+09 CONC= 1.00E+02																		

TIME	QFULLS FROM ELEMENT 1 TO NE.														
1200.00	0.00********	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	151.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	.00	0.00	0.00	0.00
	20.85	20.85	20.85	20.85	20.85	20.85	20.85	20.85	20.85	20.85	2511.81	2492.60	2538.18	2581.36	2579.82
	2478.61	2489.68	2496.83	2496.92	2487.27										
2 5	25.0	390.4	459.4	616.	1.36	731.0	60.9	-277.2	-10.4-7226.6		-272.3	860.2	71.3	100.2		8.3	4	5
COLIN= 3.04E+09 SCOL(MPN)= 1.21E+09 CONC= 8.98E+03 COLOUT= 3.50E+09 CONC= 9.17E+01																		

TIME	QFULLS FROM ELEMENT 1 TO NE.														
1500.00	0.00********	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	459.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	20.85	20.85	20.85	20.85	20.85	20.85	20.85	20.85	20.85	20.85	2739.36	2561.81	2518.66	2536.42	2568.80
	2478.60	2528.07	2492.89	2479.73	2479.68										
2 6	30.0	557.7	488.4	654.	1.45	1044.2	174.1	-147.5	11.5-3818.3		282.5	918.5	152.1	100.2		14.7	5	6
COLIN= 3.95E+09 SCOL(MPN)= 7.21E+08 CONC= 3.09E+03 COLOUT= 3.48E+09 CONC= 8.30E+01																		

TIME	QFULLS FROM ELEMENT 1 TO NE.														
1800.00	0.00********	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	488.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	.10	0.00	0.00	0.00
	20.85	20.85	20.85	20.85	20.85	20.85	20.85	20.85	20.85	20.85	2513.80	2566.95	2555.22	2542.73	2538.93
	2534.13	2549.52	2559.65	2564.06	2550.71										
2 7	35.0	725.0	791.5	1061.	2.35	1357.5	339.4	-272.1	-19.1-4117.3		-288.8	1482.2	170.0	100.2		23.0	6	7
COLIN= 4.62E+09 SCOL(MPN)= 1.15E+09 CONC= 3.82E+03 COLOUT= 5.05E+09 CONC= 7.50E+01																		

TIME	QFULLS FROM ELEMENT 1 TO NE.

BED OF SOLIDS IN SEWER AT END OF STORM

ELEMENT NUMBER	SOLIDS IN BOTTOM (LBS)
63	0.00000
64	0.00000
65	0.00000
66	0.00000
67	0.00000
68	0.00000
69	0.00000
70	0.00000
71	0.00000
72	0.00000
83	0.00000
84	0.00000
85	0.00000
86	0.00000
87	0.00000
88	0.00000
89	0.00000
90	0.00000
91	0.00000
92	0.00000

RESULTS OF POLLUTANT MONITORING ROUTINE

POLLUTANTS ASSOCIATED WITH MANHOLES (INLET POINTS) RANKED IN ORDER OF SIGNIFICANCE OF SUSPENDED SOLIDS.

		SUSPENDED SOLIDS (LB)				5 - DAY BOD (LB)			
RANK	INLET	RUNOFF	D.W.F.	P.SCOUR	TOTAL SS	RUNOFF	D.W.F.	TOTAL BOD	TOTAL INFLOW (CFS)
1	38	.352E+05	.0	0.00	.352E+05	*******	.0	.852E+05	.955E+05
2	12	.296E+03	.0	0.00	.296E+03	717.37	.0	.717E+03	.383E+03
3	13	.0	.0	0.00	.0	0.00	.0	.0	.0
4	14	.0	.0	0.00	.0	0.00	.0	.0	.0
5	15	.0	.0	0.00	.0	0.00	.0	.0	.0
6	16	.0	.0	0.00	.0	0.00	.0	.0	.0
7	17	.0	.0	0.00	.0	0.00	.0	.0	.0
8	18	.0	.0	0.00	.0	0.00	.0	.0	.0
9	19	.0	.0	0.00	.0	0.00	.0	.0	.0
10	20	.0	.0	0.00	.0	0.00	.0	.0	.0
11	21	.0	.0	0.00	.0	0.00	.0	.0	.0
12	22	.0	.0	0.00	.0	0.00	.0	.0	.0
13	23	.0	.0	0.00	.0	0.00	.0	.0	.0
14	24	.0	.0	0.00	.0	0.00	.0	.0	.0
15	25	.0	.0	0.00	.0	0.00	.0	.0	.0
16	26	.0	.0	0.00	.0	0.00	.0	.0	.0
17	39	.0	.0	0.00	.0	0.00	.0	.0	.0
18	40	.0	.0	0.00	.0	0.00	.0	.0	.0
19	41	.0	.0	0.00	.0	0.00	.0	.0	.0
20	42	.0	.0	0.00	.0	0.00	.0	.0	.0
21	43	.0	.0	0.00	.0	0.00	.0	.0	.0
22	44	.0	.0	0.00	.0	0.00	.0	.0	.0
23	45	.0	.0	0.00	.0	0.00	.0	.0	.0
24	46	.0	.0	0.00	.0	0.00	.0	.0	.0
25	47	.0	.0	0.00	.0	0.00	.0	.0	.0
26	48	.0	.0	0.00	.0	0.00	.0	.0	.0
27	49	.0	.0	0.00	.0	0.00	.0	.0	.0
28	50	.0	.0	0.00	.0	0.00	.0	.0	.0
29	51	.0	.0	0.00	.0	0.00	.0	.0	.0
30	52	.0	.0	0.00	.0	0.00	.0	.0	.0

1SEWER MODEL EVALUATION--HYPOTHETICAL DATA--TRANSPORT

TOTAL SIMULATION TIME = 28800.0 SECONDS, TIME STEP = 300.0 SECONDS,

INFLOW POLLUTOGRAPHS AND HYDROGRAPHS AT THE FOLLOWING EXTERNAL ELEMENT NUMBERS

12 38

SELECTED INLET HYDROGRAPHS - CFS

EXTERNAL ELEMENT NUMBER	TIME STEP 1	2	3	4	5	6	7	8	9	10
12	1,880	1,880	1,880	1,880	3,280	4,690	6,100	7,510	8,920	10,330
	11,730	13,140	14,550	15,950	17,360	18,770	17,360	15,950	14,550	13,140
	11,730	10,320	8,920	7,510	6,100	4,690	3,280	1,880	1,880	1,880
	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880
	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880
	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880
	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880
	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880
	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880
	1,880	1,880	1,880	1,880	1,880	1,880				
38	223,070	223,070	223,070	223,070	390,370	557,670	724,980	892,280	1059,580	1226,880
	1394,190	1561,490	1728,790	1896,090	2063,400	2230,700	2063,400	1896,090	1728,790	1561,490
	1394,190	1226,880	1059,580	892,280	724,980	557,670	390,370	223,070	223,070	223,070
	223,070	223,070	223,070	223,070	223,070	223,070	223,070	223,070	223,070	223,070
	223,070	223,070	223,070	223,070	223,070	223,070	223,070	223,070	223,070	223,070
	223,070	223,070	223,070	223,070	223,070	223,070	223,070	223,070	223,070	223,070
	223,070	223,070	223,070	223,070	223,070	223,070	223,070	223,070	223,070	223,070
	223,070	223,070	223,070	223,070	223,070	223,070	223,070	223,070	223,070	223,070
	223,070	223,070	223,070	223,070	223,070	223,070	223,070	223,070	223,070	223,070
	223,070	223,070	223,070	223,070	223,070	223,070				

SELECTED INLET POLLUTOGRAPHS

EXTERNAL ELEMENT NUMBER	TIME STEP 1	2	3	4	5	6	7	8	9	10
				*** BOD IN LBS/MIN ***						
12	,704	,704	,704	,704	1,228	1,756	2,284	2,812	3,341	3,869
	4,393	4,921	5,449	5,973	6,501	7,029	6,501	5,973	5,449	4,921
	4,393	3,865	3,341	2,812	2,284	1,756	1,228	,704	,704	,704
	,704	,704	,704	,704	,704	,704	,704	,704	,704	,704
	,704	,704	,704	,704	,704	,704	,704	,704	,704	,704
	,704	,704	,704	,704	,704	,704	,704	,704	,704	,704
	,704	,704	,704	,704	,704	,704	,704	,704	,704	,704
	,704	,704	,704	,704	,704	,704	,704	,704	,704	,704
	,704	,704	,704	,704	,704	,704				
				** SUSPENDED SOLIDS IN LBS/MIN **						

12	0,000	0,000	0,000	0,000	,102	,293	,571	,937	1,392	1,932
	2,562	3,281	4,087	4,978	5,960	7,029	5,960	4,978	4,087	3,281
	2,562	1,932	1,392	,937	,571	,293	,102	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000				

*** COLIFORM IN MPN/MIN ***

12	3,19E+06	3,19E+06	3,19E+06	3,19E+06	5,11E+06	6,64E+06	7,77E+06	8,51E+06	8,84E+06	8,77E+06
	8,30E+06	7,44E+06	6,18E+06	4,52E+06	2,46E+06	0,	2,46E+06	4,52E+06	6,18E+06	7,44E+06
	8,30E+06	8,77E+06	8,84E+06	8,51E+06	7,77E+06	6,64E+06	5,11E+06	3,19E+06	3,19E+06	3,19E+06
	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06
	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06
	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06
	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06
	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06
	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06
	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06	3,19E+06				

*** BOD IN LBS/MIN ***

38	83,540	83,540	83,540	83,540	146,194	208,847	271,505	334,159	396,813	459,467
	522,124	584,778	647,432	710,086	772,743	835,397	772,743	710,086	647,432	584,778
	522,124	459,467	396,813	334,159	271,505	208,847	146,194	83,540	83,540	83,540
	83,540	83,540	83,540	83,540	83,540	83,540	83,540	83,540	83,540	83,540
	83,540	83,540	83,540	83,540	83,540	83,540	83,540	83,540	83,540	83,540
	83,540	83,540	83,540	83,540	83,540	83,540	83,540	83,540	83,540	83,540
	83,540	83,540	83,540	83,540	83,540	83,540	83,540	83,540	83,540	83,540
	83,540	83,540	83,540	83,540	83,540	83,540	83,540	83,540	83,540	83,540
	83,540	83,540	83,540	83,540	83,540	83,540	83,540	83,540	83,540	83,540
	83,540	83,540	83,540	83,540	83,540	83,540				

** SUSPENDED SOLIDS IN LBS/MIN **

38	0,000	0,000	0,000	0,000	12,178	34,815	67,876	111,375	165,352	229,733
	304,555	389,871	485,574	591,714	708,374	835,397	708,374	591,714	485,574	389,871
	304,555	229,733	165,352	111,375	67,876	34,815	12,178	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000				

*** COLIFORM IN MPN/MIN ***

38	3,79E+08	3,79E+08	3,79E+08	3,79E+08	6,08E+08	7,90E+08	9,24E+08	1,01E+09	1,05E+09	1,04E+09
	9,87E+08	8,84E+08	7,36E+08	5,37E+08	2,92E+08	0,	2,92E+08	5,37E+08	7,36E+08	8,84E+08
	9,87E+08	1,04E+09	1,05E+09	1,01E+09	9,24E+08	7,90E+08	6,08E+08	3,79E+08	3,79E+08	3,79E+08
	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08
	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08
	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08
	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08

3.79E+08 3.79E+08 3.79E+08 3.79E+08 3.79E+08 3.79E+08 3.79E+08 3.79E+08 3.79E+08 3.79E+08
3.79E+08 3.79E+08 3.79E+08 3.79E+08 3.79E+08 3.79E+08 3.79E+08 3.79E+08 3.79E+08 3.79E+08
3.79E+08 3.79E+08 3.79E+08 3.79E+08 3.79E+08 3.79E+08

SELECTED OUTFLOW HYDROGRAPHS - CFS

EXTERNAL ELEMENT NUMBER	TIME STEP 1	2	3	4	5	6	7	8	9	10
24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000				
25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000				
26	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000				
50	.057	7.558	116.741	268.534	239.355	279.586	478.059	678.477	852.573	1027.988
	1200.801	1371.592	1540.254	1709.353	1875.714	2038.360	2152.878	2117.348	1936.791	1733.835
	1587.264	1421.712	1246.818	1092.304	926.858	767.514	613.172	459.701	325.713	232.793
	204.369	223.114	228.482	220.182	222.611	224.344	222.128	223.498	223.291	222.836
	223.293	222.972	223.036	223.094	223.020	223.100	223.024	223.085	223.049	223.080
	223.068	223.050	223.071	223.052	223.066	223.058	223.062	223.062	223.060	223.063
	223.060	223.063	223.061	223.063	223.062	223.063	223.062	223.063	223.063	223.063
	223.063	223.063	223.063	223.063	223.064	223.064	223.064	223.064	223.064	223.064
	223.065	223.065	223.065	223.065	223.065	223.065	223.065	223.065	223.065	223.065
	223.066	223.066	223.066	223.066	223.066	223.066				
51	.057	7.558	116.741	268.471	239.353	279.490	478.806	675.183	847.483	1020.690
	1190.839	1358.873	1524.599	1690.558	1853.648	2012.931	2124.986	2090.227	1909.561	1710.564
	1570.756	1408.142	1236.136	1083.974	920.801	763.439	610.736	458.589	325.430	232.793
	204.369	223.114	228.482	220.182	222.611	224.344	222.128	223.498	223.291	222.836
	223.293	222.972	223.036	223.094	223.020	223.100	223.024	223.085	223.049	223.080
	223.068	223.050	223.071	223.052	223.066	223.058	223.062	223.062	223.060	223.063

	223.060	223.063	223.061	223.063	223.062	223.063	223.062	223.063	223.063	223.063
	223.063	223.063	223.063	223.063	223.064	223.064	223.064	223.064	223.064	223.064
	223.065	223.065	223.065	223.065	223.065	223.065	223.065	223.065	223.065	223.065
	223.066	223.066	223.066	223.066	223.066	223.066				
52	0.000	0.000	0.000	.062	.002	.096	1.253	3.093	5.098	7.402
	9.961	12.719	15.655	18.795	22.066	25.429	27.899	27.114	23.227	19.284
	16.509	13.570	10.682	8.329	6.036	4.074	2.436	1.114	.284	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000				

SELECTED OUTFLOW POLLUTOGRAPHS

EXTERNAL ELEMENT NUMBER	TIME STEP 1	2	3	4	5	6	7	8	9	10
					*** BOD IN LBS/MIN ***					
24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000				
					** SUSPENDED SOLIDS IN LBS/MIN **					
24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000				
					*** COLIFORM IN MPN/MIN ***					
24	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.				

*** MUD IN LBS/MIN ***

25

0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000				

** SUSPENDED SOLIDS IN LBS/MIN **

25

0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000				

*** COLIFORM IN MPN/MIN ***

25

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.				

*** BOD IN LBS/MIN ***

26

0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000				

** SUSPENDED SOLIDS IN LBS/MIN **

26

0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000				

*** COLIFORM IN MPN/MIN ***

26	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.				

*** BOD IN LBS/MIN ***

50	,012	2,410	47,148	122,300	99,503	94,463	174,839	257,379	318,300	384,544
	449,245	513,247	575,896	639,519	702,000	762,637	808,220	798,250	724,881	644,981
	594,244	533,559	464,482	409,395	347,027	286,565	229,944	171,951	121,430	85,446
	73,490	82,601	86,610	82,207	82,787	84,202	82,950	83,379	83,564	83,217
	83,481	83,354	83,360	83,428	83,367	83,416	83,375	83,405	83,390	83,390
	83,400	83,386	83,400	83,389	83,397	83,393	83,394	83,395	83,393	83,395
	83,393	83,395	83,394	83,395	83,394	83,395	83,395	83,395	83,395	83,395
	83,395	83,395	83,395	83,395	83,395	83,395	83,395	83,396	83,395	83,395
	83,396	83,396	83,396	83,396	83,396	83,396	83,396	83,396	83,396	83,396
	83,396	83,396	83,396	83,396	83,396	83,396				

** SUSPENDED SOLIDS IN LBS/MIN **

50	0,000	0,000	0,000	0,000	,300	3,260	16,620	46,105	88,684	141,550
	205,044	279,091	363,272	458,523	563,154	676,950	772,243	767,629	659,127	499,643
	418,075	336,121	250,503	190,796	135,102	88,199	54,728	28,405	11,741	5,675
	,415	,014	,156	,043	0,000	,000	,000	0,000	,000	,000
	,000	,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000				

*** COLIFORM IN MPN/MIN ***

50	5,61E+04	1,10E+07	2,14E+08	5,56E+08	4,51E+08	4,14E+08	7,19E+08	9,60E+08	1,04E+09	1,10E+09
	1,11E+09	1,06E+09	9,67E+08	8,25E+08	6,35E+08	3,92E+08	1,67E+08	1,42E+08	3,92E+08	6,62E+08
	8,02E+08	8,98E+08	9,73E+08	9,94E+08	9,63E+08	9,01E+08	7,96E+08	6,52E+08	4,99E+08	3,73E+08
	3,34E+08	3,78E+08	3,94E+08	3,73E+08	3,76E+08	3,63E+08	3,77E+08	3,79E+08	3,80E+08	3,78E+08
	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08
	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08
	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08
	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08
	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08
	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08				

*** BOD IN LBS/MIN ***

51	,012	2,410	47,148	122,272	99,503	94,430	174,381	256,205	316,400	381,773

	445,518	508,488	570,043	632,487	693,741	753,122	797,750	788,026	716,169	637,814
	588,064	528,466	460,503	406,273	344,767	285,045	229,031	171,534	121,524	85,446
	73,490	82,601	86,610	82,207	82,747	84,202	82,950	83,379	83,564	83,217
	83,481	83,354	83,360	83,428	83,367	83,416	83,375	83,405	83,390	83,390
	83,400	83,386	83,400	83,389	83,397	83,393	83,394	83,395	83,393	83,395
	83,393	83,395	83,394	83,395	83,394	83,395	83,395	83,395	83,395	83,395
	83,395	83,395	83,395	83,395	83,395	83,395	83,395	83,396	83,395	83,395
	83,396	83,396	83,396	83,396	83,396	83,396	83,396	83,396	83,396	83,396
	83,396	83,396	83,396	83,396	83,396	83,396				

** SUSPENDED SOLIDS IN LBS/MIN **

51	0,000	0,000	0,000	0,000	,300	3,259	16,576	45,895	88,154	140,531
	203,343	276,503	359,580	453,283	556,529	668,505	762,239	757,797	631,446	494,091
	413,727	332,913	248,357	189,341	134,222	87,730	54,510	28,336	11,751	3,675
	,415	,014	,156	,043	0,000	,000	,000	0,000	,000	,000
	,000	,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000				

*** COLIFORM IN MPN/MIN ***

51	5,61E+04	1,10E+07	2,14E+08	5,56E+08	4,51E+08	4,14E+08	7,17E+08	9,56E+08	1,04E+09	1,10E+09
	1,10E+09	1,05E+09	9,57E+08	8,16E+08	6,25E+08	3,87E+08	1,64E+08	1,40E+08	3,87E+08	6,55E+08
	7,94E+08	8,90E+08	9,65E+08	9,86E+08	9,57E+08	8,97E+08	7,93E+08	6,51E+08	4,98E+08	3,73E+08
	3,34E+08	3,78E+08	3,98E+08	3,73E+08	3,76E+08	3,83E+08	3,77E+08	3,79E+08	3,80E+08	3,78E+08
	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08
	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08
	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08
	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08
	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08	3,79E+08				

*** BOD IN LBS/MIN ***

52	0,000	0,000	0,000	,028	,001	,033	,458	1,174	1,900	2,770
	3,727	4,759	5,853	7,032	8,258	9,514	10,470	10,224	8,712	7,167
	6,181	5,093	3,979	3,122	2,260	1,521	,914	,417	,106	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000				

** SUSPENDED SOLIDS IN LBS/MIN **

52	0,000	0,000	0,000	0,000	,000	,001	,044	,210	,529	1,020
	1,701	2,588	3,692	5,040	6,625	8,445	10,004	9,832	7,681	5,552
	4,348	3,208	2,146	1,455	,880	,468	,217	,069	,010	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000

	0,000	0,000	0,000	0,000	0,000	0,000

*** COLIFORM IN MPN/MIN ***

52	0,	0,	0,	1,29E+05	4,30E+03	1,43E+05	1,88E+06	4,38E+06	6,25E+06	7,96E+06
	9,21E+06	9,87E+06	9,83E+06	9,07E+06	7,45E+06	4,89E+06	2,16E+06	1,82E+06	4,71E+06	7,36E+06
	8,34E+06	8,57E+06	8,34E+06	7,58E+06	6,27E+06	4,79E+06	3,16E+06	1,58E+06	4,34E+05	0,
	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,
	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,
	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,
	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,
	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,
	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,
	0,	0,	0,	0,	0,	0,				

SELECTED OUTFLOW POLLUTOGRAPHS

EXTERNAL ELEMENT NUMBER	TIME STEP 1	2	3	4	5	6	7	8	9	10

*** BOD IN MG/L ****

24	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000				

*** SUSPENDED SOLIDS IN MG/L ***

24	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000				

***COLIFORM IN MPN/100ML ***

24	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,
	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,
	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,
	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,
	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,
	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,
	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,
	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,
	0,	0,	0,	0,	0,	0,				

*** BOD IN MG/L ****

25

0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
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0.000 0.000 0.000 0.000 0.000 0.000
0.000 0.000 0.000 0.000 0.000 0.000

*** SUSPENDED SOLIDS IN MG/L ***

25

0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
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0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000 0.000 0.000 0.000 0.000 0.000

***COLIFORM IN MPN/100ML ***

25

0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
0. 0. 0. 0. 0. 0.

*** BOD IN MG/L ****

26

0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000 0.000 0.000 0.000 0.000 0.000

*** SUSPENDED SOLIDS IN MG/L ***

26

0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000

0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
0,000	0,000	0,000	0,000	0,000	0,000				

***COLIFORM IN MPN/100ML ***

20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.				

*** BOD IN MG/L ****

50	57,782	85,302	108,035	121,829	111,204	90,379	97,832	101,506	99,869	100,113
	100,077	100,098	100,017	100,080	100,114	100,083	100,423	100,849	100,524	99,509
	100,147	100,391	99,653	100,259	100,158	99,876	100,315	100,058	99,727	98,186
	96,191	99,034	101,401	99,873	99,432	100,400	99,894	99,884	100,108	99,897
	100,008	100,000	99,979	100,035	99,993	100,017	100,002	100,010	100,009	100,004
	100,013	100,004	100,011	100,006	100,009	100,008	100,008	100,009	100,007	100,009
	100,008	100,009	100,008	100,008	100,008	100,008	100,008	100,008	100,008	100,008
	100,008	100,008	100,008	100,008	100,008	100,008	100,008	100,008	100,008	100,008
	100,008	100,008	100,008	100,008	100,008	100,008	100,008	100,008	100,008	100,008
	100,008	100,008	100,008	100,008	100,008	100,008				

*** SUSPENDED SOLIDS IN MG/L ***

50	0,000	0,000	0,000	0,000	,335	3,119	9,300	18,183	27,825	36,852
	45,677	54,431	63,090	71,724	80,313	88,838	95,953	96,980	88,456	77,086
	70,458	63,242	53,744	46,725	38,993	30,740	23,875	16,529	9,642	4,223
	,543	,017	,182	,052	0,000	,000	,000	0,000	,000	,000
	,000	,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000				

***COLIFORM IN MPN/100ML ***

50	5,76E+01	8,50E+01	1,08E+02	1,21E+02	1,11E+02	8,70E+01	8,82E+01	8,31E+01	7,18E+01	6,31E+01
	5,42E+01	4,56E+01	3,69E+01	2,83E+01	1,98E+01	1,13E+01	4,54E+00	1,94E+00	1,19E+01	2,24E+01
	2,96E+01	3,71E+01	4,58E+01	5,30E+01	6,10E+01	6,89E+01	7,62E+01	8,33E+01	8,98E+01	9,39E+01
	9,60E+01	9,93E+01	1,01E+02	9,95E+01	9,91E+01	1,00E+02	9,96E+01	9,96E+01	9,98E+01	9,96E+01
	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01
	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01
	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01
	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01
	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01
	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01				

*** BOD IN MG/L ****

51	57,782	85,302	108,035	121,829	111,204	90,379	97,832	101,506	99,869	100,113

	100,077	100,098	100,017	100,080	100,114	100,083	100,423	100,849	100,324	99,509
	100,147	100,391	99,653	100,259	100,158	99,876	100,315	100,058	99,727	98,186
	96,191	99,034	101,401	99,873	99,432	100,400	99,894	99,864	100,108	99,897
	100,008	100,000	99,979	100,035	99,993	100,017	100,002	100,010	100,009	100,004
	100,013	100,004	100,011	100,006	100,009	100,008	100,008	100,009	100,007	100,009
	100,008	100,009	100,008	100,008	100,008	100,008	100,008	100,008	100,008	100,008
	100,008	100,008	100,008	100,008	100,008	100,008	100,008	100,008	100,008	100,008
	100,008	100,008	100,008	100,008	100,008	100,008	100,008	100,008	100,008	100,008
	100,008	100,008	100,008	100,008	100,008	100,008				

*** SUSPENDED SOLIDS IN MG/L ***

51	0,000	0,000	0,000	0,000	,335	3,119	9,300	18,183	27,825	36,852
	45,677	54,431	63,090	71,724	80,313	88,838	95,953	96,980	88,456	77,086
	70,458	63,242	53,744	46,725	38,993	30,740	23,875	16,529	9,642	4,223
	,543	,017	,182	,052	0,000	,000	,000	0,000	,000	,000
	,000	,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000				

***COLIFORM IN MPN/100ML ***

51	5,76E+01	8,50E+01	1,08E+02	1,21E+02	1,11E+02	8,70E+01	8,82E+01	8,31E+01	7,18E+01	6,31E+01
	5,42E+01	4,56E+01	3,69E+01	2,83E+01	1,98E+01	1,13E+01	4,54E+00	3,94E+00	1,19E+01	2,24E+01
	2,96E+01	3,71E+01	4,58E+01	5,34E+01	6,10E+01	6,89E+01	7,62E+01	8,33E+01	8,98E+01	9,39E+01
	9,60E+01	9,93E+01	1,01E+02	9,95E+01	9,91E+01	1,00E+02	9,96E+01	9,96E+01	9,98E+01	9,96E+01
	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01
	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01
	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01
	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01
	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01	9,97E+01				

*** BOD IN MG/L ****

52	0,000	0,000	0,000	121,829	111,204	90,379	97,832	101,506	99,869	100,113
	100,077	100,098	100,017	100,080	100,114	100,083	100,423	100,849	100,324	99,509
	100,147	100,391	99,653	100,259	100,158	99,876	100,315	100,058	99,727	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000				

*** SUSPENDED SOLIDS IN MG/L ***

52	0,000	0,000	0,000	0,000	,335	3,119	9,300	18,183	27,825	36,852
	45,677	54,431	63,090	71,724	80,313	88,838	95,953	96,980	88,456	77,086
	70,458	63,242	53,744	46,725	38,993	30,740	23,875	16,529	9,642	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000

0,000 0,000 0,000 0,000 0,000 0,000

***COLIFORM IN MPN/100ML ***

52	0.	0.	0.	1.21E+02	1.11E+02	8.70E+01	8.82E+01	8.31E+01	7.18E+01	6.31E+01
	5.42E+01	4.56E+01	3.69E+01	2.83E+01	1.98E+01	1.13E+01	4.54E+00	3.94E+00	1.19E+01	2.24E+01
	2.96E+01	3.71E+01	4.58E+01	5.34E+01	6.10E+01	6.89E+01	7.62E+01	8.33E+01	8.98E+01	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.				

TOTAL POUNDS OF SUSPENDED SOLIDS OUTPUT FROM ELEMENT 52 = 574.83

TOTAL POUNDS OF FIVE-DAY BOD OUTPUT FROM ELEMENT 52 = 528.37

MASSACHUSETTS INSTITUTE OF TECHNOLOGY URBAN WATERSHED MODEL

INPUT DATA LISTING FOR HYPOTHETICAL CATCHMENT SIMULATION

```
MITCAT RUNS FOR HYPOTHETICAL CATCHMENTS - - MITCAT CATCH NO. 1 - - STORM NO. 1
CATCHMENT NUMBER 1 NAME CATCH&1 LENGTH 500. SLOPE .001 N .25
          INFIL HORTON F0 2. FC .5 K 3.6 DETENTION .2
          INFLOW 1 FINISH
CATCH NUMB 11 AS 1 NAME CATCH&11  F0 .5 FINISH
CATCH NUMB 6 AS 1 NAME CATCH&6 SLOPE .1 FINISH
CATCH NUMB 16 AS 11 NAME CATCH&16 SLOPE .1 FINISH
CATCH NUMB 21 AS 1 NAME CATCH&21 LENGTH 1000. FINISH
CATCH NUMB 31 AS 11 NAME CATCH&31 LENGTH 1000. FINISH
CATCH NUMB 26 AS 1 NAME CATCH&26 SLOPE .1 LENGTH 1000. FINISH
CATCH NUMB 36 AS 11 NAME CATCH&36 SLOPE .1 LENGTH 1000. FINISH
CATCH NUMB 41 AS 1 NAME CATCH&41 LENGTH 158. FINISH
CATCH NUMB 51 AS 11 NAME CATCH&51 LENGTH 158. FINISH
CATCH NUMB 46 AS 1 NAME CATCH&46 LENGTH 158. SLOPE .1 FINISH
CATCH NUMB 56 AS 11 NAME CATCH&56 LENGTH 158. SLOPE .1 FINISH
CATCH NUMB 61 AS 1 NAME CATCH&61 LENGTH 316. FINISH
CATCH NUMB 71 AS 11 NAME CATCH&71 LENGTH 316. FINISH
CATCH NUMB 66 AS 1 NAME CATCH&66 LENGTH 316. SLOPE .1 FINISH
CATCH NUMB 76 AS 11 NAME CATCH&76 LENGTH 316. SLOPE .1 FINISH
STREAM NUMB 1 NAME STRM&1 DUMMY FINISH
STREAM NUMB 6 NAME STRM&6 DUMMY FINISH
STREAM NUMB 21 NAME STRM&21 DUMMY FINISH
STREAM NUMB 26 NAME STRM&26 DUMMY FINISH
STREAM NUMB 41 NAME STRM&41 DUMMY FINISH
STREAM NUMB 46 NAME STRM&46 DUMMY FINISH
STREAM NUMB 61 NAME STRM&61 DUMMY FINISH
STREAM NUMB 66 NAME STRM&66 DUMMY FINISH
STREAM NUMB 100 NAME STRM&100 DUMMY FINISH
STREAM NUMB 210 NAME STRM&210 DUMMY FINISH
STREAM NUMB 410 NAME STRM&410 DUMMY FINISH
STREAM NUMB 610 NAME STRM&610 DUMMY FINISH
STREAM NUMB 900 NAME STRM&900 DUMMY FINISH
STREAM NUMB 901 NAME STRM&901 DUMMY FINISH
STREAM NUMB 902 NAME STRM&902 DUMMY FINISH
NODE
NODE 1 C 1 S 1 C 11
NODE 6 C 6 S 6 C 16
NODE 21 C 21 S 21 C 31
NODE 26 C 26 S 26 C 36
NODE 41 C 41 S 41 C 51
NODE 46 C 46 S 46 C 56
NODE 61 C 61 S 61 C 71
NODE 66 C 66 S 66 C 76
NODE 100 S 100
NODE 210 S 210
NODE 410 S 410
NODE 610 S 610
NODE 900 S 900
NODE 901 S 901
NODE 902 S 902
FINISH
CONNECTIVITY
NODE 100 LINK 1 6
NODE 210 LINK 21 26
```

Table A-1 Input Catchment Run No. 1

```
NODE 410 LINK 41 46
NODE 610 LINK 61 66
NODE 900 LINK 100 210
NODE 901 LINK 410 610
NODE 902 LINK 900 901
FINISH
TERMINATE NODE 46 FINISH
CONTROL TMAX 180. DTMIN 2. INFLOW 10. FINISH
HYDROGRAPH FILE  TESTFILE FINISH
HYDROGRAPHS PLOT CATCHMENT LATERAL 1
            OFF PRINT STORE CATCHMENT OUTFLOW 1 11 6 16 21 31 26 36 41 51
            46 56 61 71 66 76 FINISH
INFLOW 'TYPE' 1 'BLOCK' 'DELT' 60. 'INTEN' 1. 1. 0. 0. FINISH
DISPLAY ALL COMPRESS FINISH
GO
UPDATE
MITCAT RUNS FOR HYPOTHETICAL CATCHMENTS - - MITCAT CATCH NO. 1 - - STORM NO. 2
CHANGE CATCHMENT INFLOW 2 FINISH
CONTROL TMAX 120. FINISH
INFLOW 'TYPE' 2 'BLOCK' 'DELT' 5. 'INTEN' .333 1.0 1.667 2.333 3.0 3.667 3.667
       3.0 2.333 1.667 1.0 .333 0. FINISH
GO
UPDATE
MITCAT RUNS FOR HYPOTHETICAL CATCHMENTS - - MITCAT CATCH NO. 1 - - STORM NO. 3
CHANGE CATCHMENT INFLOW 3 FINISH
CONTROL TMAX 180. FINISH
INFLOW 'TYPE' 3 'BLOCK' 'DELT' 5. 'INTEN' .083 .250 .417 .583 .750 1.083 1.250
1.417 1.583 1.750 1.917 1.917 1.750 1.583 1.417 1.250 1.083 .917 .750 .583 .417
.250 .083 0. FINISH
GO
UPDATE
MITCAT RUNS FOR HYPOTHETICAL CATCHMENTS - - MITCAT CATCH NO. 1 - - STORM NO. 4
CHANGE CATCHMENT INFLOW 4 FINISH
CONTROL TMAX 300. FINISH
INFLOW 'TYPE' 4 'BLOCK' 'DELT' 5. 'INTEN' .021 .063 .105 .147 .189 .231 .273
.315 .357 .399 .441 .483 .525 .567 .609 .651 .693 .735 .777 .819 .861 .903 .945
.987 .987 .945 .903 .861 .819 .777 .735 .693 .651 .609 .567 .525 .483 .441 .399
.357 .315 .273 .231 .189 .147 .105 .063 .021 0. FINISH
GO
GOODBYE
```

Input Catchment Run No. 1 con't

```
* MITCAT RUNS FOR HYPOTHETICAL CATCHMENTS - - MITCAT CATCH NO. 2 - - STORM NO. 1
CATCHMENT NUMBER 5 NAME CATCH&5 LENGTH 500. SLOPE .001 N .025 URBAN 1.0
          INFIL HORTON FO 0. FC 0. K 3.6 DETENTION .05
          INFLOW 1 FINISH
*
CATCH NUMB 10 AS 5 NAME CATCH&10 SLOPE .1 FINISH
CATCH NUMB 25 AS 5 NAME CATCH&25 LENGTH 1000. FINISH
CATCH NUMB 30 AS 5 NAME CATCH&30 SLOPE .1 LENGTH 1000. FINISH
* CATCH NUMB 45 AS 5 NAME CATCH&45 LENGTH 158. FINISH
CATCH NUMB 50 AS 5 NAME CATCH&50 LENGTH 158. SLOPE .1 FINISH
CATCH NUMB 65 AS 5 NAME CATCH&65 LENGTH 316. FINISH
* CATCH NUMB 70 AS 5 NAME CATCH&70 LENGTH 316. SLOPE .1 FINISH
STREAM NUMB 5 NAME STRM&5 DUMMY FINISH
STREAM NUMB 10 NAME STRM&10 DUMMY FINISH
* STREAM NUMB 25 NAME STRM&25 DUMMY FINISH
STREAM NUMB 30 NAME STRM&30 DUMMY FINISH
STREAM NUMB 45 NAME STRM&45 DUMMY FINISH
* STREAM NUMB 50 NAME STRM&50 DUMMY FINISH
STREAM NUMB 65 NAME STRM&65 DUMMY FINISH
STREAM NUMB 70 NAME STRM&70 DUMMY FINISH
STREAM NUMB 100 NAME STRM&100 DUMMY FINISH
STREAM NUMB 210 NAME STRM&210 DUMMY FINISH
STREAM NUMB 410 NAME STRM&410 DUMMY FINISH
STREAM NUMB 610 NAME STRM&610 DUMMY FINISH
STREAM NUMB 900 NAME STRM&900 DUMMY FINISH
STREAM NUMB 901 NAME STRM&901 DUMMY FINISH
STREAM NUMB 902 NAME STRM&902 DUMMY FINISH
NODE
NODE 5 C 5 S 5
NODE 10 C 10 S 10
NODE 25 C 25 S 25
NODE 30 C 30 S 30
NODE 45 C 45 S 45
NODE 50 C 50 S 50
NODE 65 C 65 S 65
NODE 70 C 70 S 70
NODE 100 S 100
NODE 210 S 210
NODE 410 S 410
NODE 610 S 610
NODE 900 S 900
NODE 901 S 901
NODE 902 S 902
FINISH
CONNECTIVITY
NODE 100 LINK 5 10
NODE 210 LINK 25 30
NODE 410 LINK 45 50
NODE 610 LINK 65 70
NODE 900 LINK 100 210
NODE 901 LINK 410 610
NODE 902 LINK 900 901
FINISH
TERMINATE NODE 902 FINISH
CONTROL TMAX 150. DTMIN 2. INFLOW 10. FINISH
```

Table A-2 Input Catchment Run No. 2

```
HYDROGRAPH FILE  TESTFILE FINISH
HYDROGRAPHS PLOT CATCHMENT LATERAL 5
            OFF PRINT STORE CATCHMENT OUTFLOW 5 10 25 30 45 50 65 70 FINISH
INFLOW 'TYPE' 1 'BLOCK' 'DELT' 60. 'INTEN' 1. 1. 0. 0. FINISH
DISPLAY ALL COMPRESS FINISH
GO
UPDATE
MITCAT RUNS FOR HYPOTHETICAL CATCHMENTS - - MITCAT CATCH NO. 2 - - STORM NO. 2
CHANGE CATCHMENT INFLOW 2 FINISH
CONTROL TMAX 90. FINISH
INFLOW 'TYPE' 2 'BLOCK' 'DELT' 5. 'INTEN' .333 1.0 1.667 2.333 3.0 3.667 3.667
      3.0 2.333 1.667 1.0 .333 0. FINISH
DISPLAY OFF FINISH
DISPLAY INFLOW FINISH
GO
UPDATE
MITCAT RUNS FOR HYPOTHETICAL CATCHMENTS - - MITCAT CATCH NO. 2 - - STORM NO. 3
CHANGE CATCHMENT INFLOW 3 FINISH
CONTROL TMAX 150. FINISH
INFLOW 'TYPE' 3 'BLOCK' 'DELT' 5. 'INTEN' .083 .250 .417 .583 .750 1.083 1.250
1.417 1.583 1.750 1.917 1.917 1.750 1.583 1.417 1.250 1.083 .917 .750 .583 .41
.250 .083 0. FINISH
GO
UPDATE
MITCAT RUNS FOR HYPOTHETICAL CATCHMENTS - - MITCAT CATCH NO. 2 - - STORM NO. 4
CHANGE CATCHMENT INFLOW 4 FINISH
CONTROL TMAX 270. FINISH
INFLOW 'TYPE' 4 'BLOCK' 'DELT' 5. 'INTEN' .021 .063 .105 .147 .189 .231 .273
.315 .357 .399 .441 .483 .525 .567 .609 .651 .693 .735 .777 .819 .861 .903 .94
.987 .987 .945 .903 .861 .819 .777 .735 .693 .651 .609 .567 .525 .483 .441 .39
.357 .315 .273 .231 .189 .147 .105 .063 .021 0. FINISH
GO
GOODBYE
```

Input Catchment Run No. 2 con't

MASSACHUSETTS INSTITUTE OF TECHNOLOGY URBAN WATERSHED MODEL

SELECTED OUTPUT OF HYPOTHETICAL CATCHMENT SIMULATION

C A T C H M E N T A N A L Y S I S

BRENDAN M. HANLEY — MASSACHUSETTS INSTITUTE OF TECHNOLOGY — 1972

UPDATE : MITCAT RUNS FOR HYPOTHETICAL CATCHMENTS - - MITCAT CATCH NO. 1 - - STORM NO. 3

DATE : 08/22/74 — VERSION 6 — T I M E : 16.10.14

```
CHANGE
CONTROL
INFLOW
GO

 *** CONNEC *** AUTO SET OF TERMINATING ELEMENT..
                RUN WILL NOW TERMINATE AT STREAM    NO.   902 IN NODE   902 ***
```

OVERALL SYSTEM SUMMARY
****

NODES/SUBSYSTEMS :

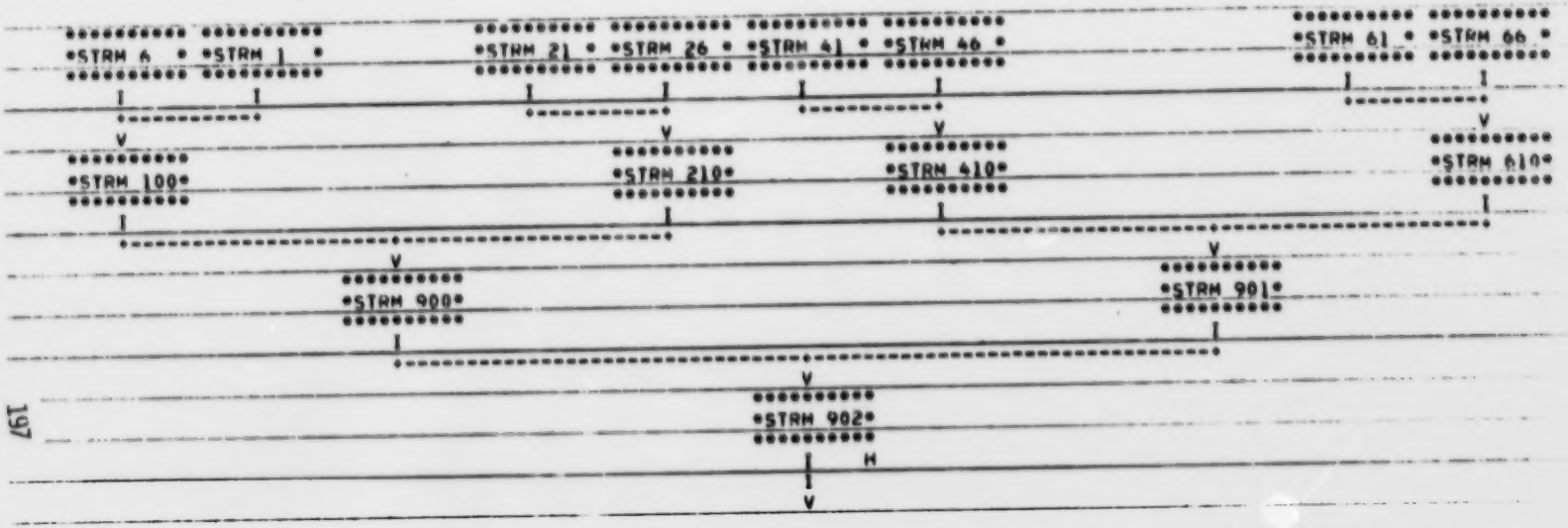
NO.NODES	:	15			
NO.SUBSYSTEMS	:	31	NO.1ST.ORDER CATCHMENTS	:	16
			NO.STREAM SEGMENTS	:	15
			NO.RESERVOIR SEGMENTS	:	0
			NO.PIPES SEGMENTS	:	0

SUBSYTEM USAGE :

	NAME	USAGE
CATCHMENTS:	1	1
	11	1
	6	1
	16	1
	21	1
	31	1
	26	1
	36	1
	41	1
	51	1
	46	1
	56	1
	61	1
	71	1
	66	1
	76	1
STREAMS :	NAME	USAGE
	1	1
	6	1
	21	1
	26	1
	41	1
	46	1
	61	1
	66	1
	100	1
	210	1
	410	1
	610	1
	900	1
	901	1
	902	1
RESERVOIRS:	NAME	USAGE
	NONE	ZERO

NONE ZERO

SEGMENT CONNECTIVITY :



NODE INFRA-STRUCTURE :

NAME	NODE NO	SCHEMATIC	TOTAL AREA (ACRES)	IMPERVIOUS AREA (ACRES)	PERVIOUS AREA (ACRES)
STRM 1	1	C 1 -- S 1 -- C 11	0.2296E-01	0.0	0.2296E-01
STRM 100	100	S100	0.0	0.0	0.0
STRM 21	21	C 21 -- S 21 -- C 31	0.4591E-01	0.0	0.4591E-01
STRM 210	210	S210	0.0	0.0	0.0
STRM 26	26	C 26 -- S 26 -- C 36	0.4591E-01	0.0	0.4591E-01
STRM 41	41	C 41 -- S 41 -- C 51	0.7254E-02	0.0	0.7254E-02
STRM 410	410	S410	0.0	0.0	0.0
STRM 46	46	C 46 -- S 46 -- C 56	0.7254E-02	0.0	0.7254E-02
STRM 6	6	C 6 -- S 6 -- C 16	0.2296E-01	0.0	0.2296E-01
STRM 61	61	C 61 -- S 61 -- C 71	0.1451E-01	0.0	0.1451E-01
STRM 610	610	S610	0.0	0.0	0.0
STRM 66	66	C 66 -- S 66 -- C 76	0.1451E-01	0.0	0.1451E-01
STRM 900	900	S900	0.0	0.0	0.0
STRM 901	901	S901	0.0	0.0	0.0
STRM 902	902	S902	0.0	0.0	0.0
TOTALS FOR THIS RUN :		AREAS IN ACRES :	0.1813E 00	0.0	0.1813E 00
		AREAS IN SQ. MILES :	0.0003	0.0	0.0003

STREAM GEOMETRY DATA :

NUMBER	NAME	COORDINATES X	COORDINATES Y	COORDINATES Z	ACT.LENGTH (FT)	SLOPE	GRADIENT (1 FT. IN)	X-SECTION SHAPE	WIDTH/DIAM (FT)	SIDE SLOPE (1 FT. IN)
1	STRM 1	-	-	-		----- DUMMY -----		TRIANGULAR	-	25.0
100	STRM 100	-	-	-		----- DUMMY -----		TRIANGULAR	-	25.0
21	STRM 21	-	-	-		----- DUMMY -----		TRIANGULAR	-	25.0
210	STRM 210	-	-	-		----- DUMMY -----		TRIANGULAR	-	25.0
26	STRM 26	-	-	-		----- DUMMY -----		TRIANGULAR	-	25.0
41	STRM 41	-	-	-		----- DUMMY -----		TRIANGULAR	-	25.0
410	STRM 410	-	-	-		----- DUMMY -----		TRIANGULAR	-	25.0
46	STRM 46	-	-	-		----- DUMMY -----		TRIANGULAR	-	25.0
6	STRM 6	-	-	-		----- DUMMY -----		TRIANGULAR	-	25.0
61	STRM 61	-	-	-		----- DUMMY -----		TRIANGULAR	-	25.0
610	STRM 610	-	-	-		----- DUMMY -----		TRIANGULAR	-	25.0
66	STRM 66	-	-	-		----- DUMMY -----		TRIANGULAR	-	25.0
900	STRM 900	-	-	-		----- DUMMY -----		TRIANGULAR	-	25.0
901	STRM 901	-	-	-		----- DUMMY -----		TRIANGULAR	-	25.0
902	STRM 902	-	-	-		----- DUMMY -----		TRIANGULAR	-	25.0

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STREAM DATA - KINEMATIC :

NUMBER	NAME	EFF.LENGTH (FT)	MANNING (N)	ALPHA (ACTUAL)	ALPHA (EFFECT.)	M	ROUTING SCHEME	CRITICAL CONDITIONS VEL(FT/S)	CRITICAL CONDITIONS DISCH(CFS)	CRITICAL CONDITIONS STAGE(FT)
1	STRM 1	-	0.015	0.303	0.303	1.333	---- DUMMY -----	-	-	-
100	STRM 100	-	0.015	0.303	0.303	1.333	---- DUMMY -----	-	-	-
21	STRM 21	-	0.015	0.303	0.303	1.333	---- DUMMY -----	-	-	-
210	STRM 210	-	0.015	0.303	0.303	1.333	---- DUMMY -----	-	-	-
26	STRM 26	-	0.015	0.303	0.303	1.333	---- DUMMY -----	-	-	-
41	STRM 41	-	0.015	0.303	0.303	1.333	---- DUMMY -----	-	-	-
410	STRM 410	-	0.015	0.303	0.303	1.333	---- DUMMY -----	-	-	-
46	STRM 46	-	0.015	0.303	0.303	1.333	---- DUMMY -----	-	-	-
6	STRM 6	-	0.015	0.303	0.303	1.333	---- DUMMY -----	-	-	-
61	STRM 61	-	0.015	0.303	0.303	1.333	---- DUMMY -----	-	-	-
610	STRM 610	-	0.015	0.303	0.303	1.333	---- DUMMY -----	-	-	-
66	STRM 66	-	0.015	0.303	0.303	1.333	---- DUMMY -----	-	-	-
900	STRM 900	-	0.015	0.303	0.303	1.333	---- DUMMY -----	-	-	-
901	STRM 901	-	0.015	0.303	0.303	1.333	---- DUMMY -----	-	-	-
902	STRM 902	-	0.015	0.303	0.303	1.333	---- DUMMY -----	-	-	-

STREAM DATA - EROSION PARAMETERS I

NUMBER	NAME	PLASTIC INDEX	GRAIN SIZE (MM)	VEGETATED (%)	LIMITING TRACTIVE FORCES (LB/SQ.FT) WET	NO-VEG	100%-VEG	ACTUAL	INDICATOR CHECKED
1	STRM 1	12.0	-	0.0	-	-	-	-	VELOCITY
100	STRM 100	12.0	-	0.0	-	-	-	-	VELOCITY
21	STRM 21	12.0	-	0.0	-	-	-	-	VELOCITY
210	STRM 210	12.0	-	0.0	-	-	-	-	VELOCITY
26	STRM 26	12.0	-	0.0	-	-	-	-	VELOCITY
41	STRM 41	12.0	-	0.0	-	-	-	-	VELOCITY
410	STRM 410	12.0	-	0.0	-	-	-	-	VELOCITY
46	STRM 46	12.0	-	0.0	-	-	-	-	VELOCITY
6	STRM 6	12.0	-	0.0	-	-	-	-	VELOCITY
61	STRM 61	12.0	-	0.0	-	-	-	-	VELOCITY
610	STRM 610	12.0	-	0.0	-	-	-	-	VELOCITY
66	STRM 66	12.0	-	0.0	-	-	-	-	VELOCITY
900	STRM 900	12.0	-	0.0	-	-	-	-	VELOCITY
901	STRM 901	12.0	-	0.0	-	-	-	-	VELOCITY
902	STRM 902	12.0	-	0.0	-	-	-	-	VELOCITY

STREAM DATA - INFLOWS :

NUMBER	NAME	UPSTREAM INFLOW					INFLOW SCALING		BASE FLOW	RATING CURVE
		SEGMENT	ELEMENT	NUMBER	FILE	TIME	TIME	INTEN.	(CFS)	USED
1	STRM 1	-	-	-	-	-	-	-	-	NO
100	STRM 100	-	-	-	-	-	-	-	-	NO
21	STRM 21	-	-	-	-	-	-	-	-	NO
210	STRM 210	-	-	-	-	-	-	-	-	NO
26	STRM 26	-	-	-	-	-	-	-	-	NO
41	STRM 41	-	-	-	-	-	-	-	-	NO
410	STRM 410	-	-	-	-	-	-	-	-	NO
46	STRM 46	-	-	-	-	-	-	-	-	NO
6	STRM 6	-	-	-	-	-	-	-	-	NO
61	STRM 61	-	-	-	-	-	-	-	-	NO
610	STRM 610	-	-	-	-	-	-	-	-	NO
66	STRM 66	-	-	-	-	-	-	-	-	NO
900	STRM 900	-	-	-	-	-	-	-	-	NO
901	STRM 901	-	-	-	-	-	-	-	-	NO
902	STRM 902	-	-	-	-	-	-	-	-	NO

STREAM RATING CURVES :
=====================

>>>>> NONE LOADED <<<<<

CATCHMENT GEOMETRY DATA :

NUMBER	NAME	COORDINATES			ACT.LENGTH	SLOPE	GRADIENT	% IMPERVIOUS	LAND SEG. NO.
		X	Y	Z	(FT)		(1 FT. IN)		
1	CATCH 1	-	-	-	500.00	0.00100	1000.00	-	-
11	CATCH 11	-	-	-	500.00	0.00100	1000.00	-	-
16	CATCH 16	-	-	-	500.00	0.10000	10.00	-	-
21	CATCH 21	-	-	-	1000.00	0.00100	1000.00	-	-
26	CATCH 26	-	-	-	1000.00	0.10000	10.00	-	-
31	CATCH 31	-	-	-	1000.00	0.00100	1000.00	-	-
36	CATCH 36	-	-	-	1000.00	0.10000	10.00	-	-
41	CATCH 41	-	-	-	158.00	0.00100	1000.00	-	-
46	CATCH 46	-	-	-	158.00	0.10000	10.00	-	-
51	CATCH 51	-	-	-	158.00	0.00100	1000.00	-	-
56	CATCH 56	-	-	-	158.00	0.10000	10.00	-	-
6	CATCH 6	-	-	-	500.00	0.10000	10.00	-	-
61	CATCH 61	-	-	-	316.00	0.00100	1000.00	-	-
66	CATCH 66	-	-	-	316.00	0.10000	10.00	-	-
71	CATCH 71	-	-	-	316.00	0.00100	1000.00	-	-
76	CATCH 76	-	-	-	316.00	0.10000	10.00	-	-

CATCHMENT DATA - KINEMATIC :

NUMBER	NAME	EFF.LENGTH (FT.)	MANNING (N)	ALPHA (ACTUAL)	ALPHA (EFFECT.)	M	ROUTING SCHEME	EVAPORATION PARAMETERS ROUGHNESS	EVAPORATION PARAMETERS STOMATAL RESIS.
1	CATCH 1	500.000	0.250	0.188	0.188	1.667	F.DIFF KINEMATIC	-	-
11	CATCH 11	500.000	0.250	0.188	0.188	1.667	F.DIFF KINEMATIC	-	-
16	CATCH 16	500.000	0.250	1.885	1.885	1.667	F.DIFF KINEMATIC	-	-
21	CATCH 21	1000.000	0.250	0.188	0.188	1.667	F.DIFF KINEMATIC	-	-
26	CATCH 26	1000.000	0.250	1.885	1.885	1.667	F.DIFF KINEMATIC	-	-
31	CATCH 31	1000.000	0.250	0.188	0.188	1.667	F.DIFF KINEMATIC	-	-
36	CATCH 36	1000.000	0.250	1.885	1.885	1.667	F.DIFF KINEMATIC	-	-
41	CATCH 41	158.000	0.250	0.188	0.188	1.667	F.DIFF KINEMATIC	-	-
46	CATCH 46	158.000	0.250	1.885	1.885	1.667	F.DIFF KINEMATIC	-	-
51	CATCH 51	158.000	0.250	0.188	0.188	1.667	F.DIFF KINEMATIC	-	-
56	CATCH 56	158.000	0.250	1.885	1.885	1.667	F.DIFF KINEMATIC	-	-
6	CATCH 6	500.000	0.250	1.885	1.885	1.667	F.DIFF KINEMATIC	-	-
61	CATCH 61	316.000	0.250	0.188	0.188	1.667	F.DIFF KINEMATIC	-	-
66	CATCH 66	316.000	0.250	1.885	1.885	1.667	F.DIFF KINEMATIC	-	-
71	CATCH 71	316.000	0.250	0.188	0.188	1.667	F.DIFF KINEMATIC	-	-
76	CATCH 76	316.000	0.250	1.885	1.885	1.667	F.DIFF KINEMATIC	-	-

CATCHMENT DATA - INFLOWS :

NUMBER	NAME	LATERAL INFLOW				INFLOW SCALING		INITIAL LAG	INFILTRATION PARAMETERS				
		GAUGE	STORM	FILE	TIME	TIME	INTEN.	(MIN)	TYPE	1	2	3	DETN
1	CATCH 1	0	3	-	-	-	-	-	HORT	2.00	0.50	3.60	0.20
11	CATCH 11	0	3	-	-	-	-	-	HORT	0.50	0.50	3.60	0.20
16	CATCH 16	0	3	-	-	-	-	-	HORT	0.50	0.50	3.60	0.20
21	CATCH 21	0	3	-	-	-	-	-	HORT	2.00	0.50	3.60	0.20
26	CATCH 26	0	3	-	-	-	-	-	HORT	2.00	0.50	3.60	0.20
31	CATCH 31	0	3	-	-	-	-	-	HORT	0.50	0.50	3.60	0.20
36	CATCH 36	0	3	-	-	-	-	-	HORT	0.50	0.50	3.60	0.20
41	CATCH 41	0	3	-	-	-	-	-	HORT	2.00	0.50	3.60	0.20
46	CATCH 46	0	3	-	-	-	-	-	HORT	2.00	0.50	3.60	0.20
51	CATCH 51	0	3	-	-	-	-	-	HORT	0.50	0.50	3.60	0.20
56	CATCH 56	0	3	-	-	-	-	-	HORT	0.50	0.50	3.60	0.20
6	CATCH 6	0	3	-	-	-	-	-	HORT	2.00	0.50	3.60	0.20
61	CATCH 61	0	3	-	-	-	-	-	HORT	2.00	0.50	3.60	0.20
66	CATCH 66	0	3	-	-	-	-	-	HORT	2.00	0.50	3.60	0.20
71	CATCH 71	0	3	-	-	-	-	-	HORT	0.50	0.50	3.60	0.20
76	CATCH 76	0	3	-	-	-	-	-	HORT	0.50	0.50	3.60	0.20

RESERVOIR GEOMETRY DATA :
==========

>>>> NO RESERVOIR LOADED <<<<

HYDROGRAPHS REQUESTED AT :

	NUMBER	NAME	FLOW	PRINT	PLOT	STORE	FLAG	STAGE	VELOCITY	Q-H RELATION	EROSION
CATCHMENTS:	1	CATCH 1 LATERAL	X		X						
	1	CATCH 1 OUTFLOW	X		X	TESTFILE	NO			KINEMATIC	
	11	CATCH 11 OUTFLOW	X			TESTFILE	NO			KINEMATIC	
	16	CATCH 16 OUTFLOW	X			TESTFILE	NO			KINEMATIC	
	21	CATCH 21 OUTFLOW	X			TESTFILE	NO			KINEMATIC	
	26	CATCH 26 OUTFLOW	X			TESTFILE	NO			KINEMATIC	
	31	CATCH 31 OUTFLOW	X			TESTFILE	NO			KINEMATIC	
	36	CATCH 36 OUTFLOW	X			TESTFILE	NO			KINEMATIC	
	41	CATCH 41 OUTFLOW	X			TESTFILE	NO			KINEMATIC	
	51	CATCH 51 OUTFLOW	X			TESTFILE	NO			KINEMATIC	
	6	CATCH 6 OUTFLOW	X			TESTFILE	NO			KINEMATIC	
	61	CATCH 61 OUTFLOW	X			TESTFILE	NO			KINEMATIC	
	66	CATCH 66 OUTFLOW	X			TESTFILE	NO			KINEMATIC	
	71	CATCH 71 OUTFLOW	X			TESTFILE	NO			KINEMATIC	
	76	CATCH 76 OUTFLOW	X			TESTFILE	NO			KINEMATIC	
STREAMS:	902	STRM 902 OUTFLOW	X			TESTFILE	NO			KINEMATIC	

INFLOW APPLICATION PATTERNS :
==========

RAINFALL (LATERAL INFLOW) PATTERNS :

RAINFALL TYPE : 1 :

TIME (MINS)	INTENSITY (IN/HR)		EVENT NO.
0.0	1.00	*	EVENT 1
60.00	1.00	*	
120.00	0.0	*	
180.00	0.0		

SUMMARY :

PATTERN	:	'BLOCK'
NO.OF POINTS	:	4
NO.INDEP.EVENTS	:	1

RAINFALL TYPE : 2 :

TIME (MINS)	INTENSITY (IN/HR)		EVENT NO.
0.0	0.33	*	
5.00	1.00	*	
10.00	1.67	*	
15.00	2.33	*	
20.00	3.00	*	
25.00	3.67	*	EVENT 1
30.00	3.67	*	
35.00	3.00	*	
40.00	2.33	*	
45.00	1.67	*	
50.00	1.00	*	
55.00	0.33	*	
60.00	0.0	*	

SUMMARY :

PATTERN	:	'BLOCK'
NO.OF POINTS	:	13
NO.INDEP.EVENTS	:	1

RAINFALL TYPE : 3 :

TIME (MINS)	INTENSITY (IN/HR)		EVENT NO.
0.0	0.08	*	
5.00	0.25	*	
10.00	0.42	*	
15.00	0.58	*	
20.00	0.75	*	
25.00	1.08	*	
30.00	1.25	*	
35.00	1.42	*	
40.00	1.58	*	
45.00	1.75	*	
50.00	1.92	*	
55.00	1.92	*	EVENT 1
60.00	1.75	*	
65.00	1.58	*	
70.00	1.42	*	
75.00	1.25	*	
80.00	1.08	*	
85.00	0.92	*	
90.00	0.75	*	
95.00	0.58	*	
100.00	0.42	*	
105.00	0.25	*	
110.00	0.08	*	
115.00	0.0	*	

SUMMARY :

PATTERN	:	'BLOCK'
NO.OF POINTS	:	24
NO.INDEP.EVENTS	:	1

UPSTREAM INFLOW PATTERNS :

NONE LOADED !!

EVAPORATION (BASIN WIDE) DATA :

EVAPORATION FILE :

DATA IN INPUT FILE !!

ATMOSPHERIC DATA MEASUREMENT HEIGHT :

150.0000 CM.

EVAPORATION DATA :

TIME	RAD.ENERGY INPUT	WIND VELOCITY	AIR TEMP.	ATMOS.VAP.PRESSURE	SURFACE ATMOS.VAP.PRESS
(MINS)	(LY/MIN)	(CM/SEC)	(DEG C)	(MB)	(MB)
0.0	-	-	-	-	-

LAND USE PARAMETERS I

DEVELOPMENT LEVEL	RUNOFF COEFFICIENT	% SEWERED	% NATURAL IMPERVIOUS	% URBAN IMPERVIOUS	% IMPERVIOUS DRAINING DIRECT TO SEWER	IMPERVIOUS OVERLAND FLOW LENGTH (FT.)	PARTIALLY PERVIOUS OVERLAND FLOW LENGTH (FT.)
1	0.3 OR LESS	0.0	0.0	0.0	0.0	0.0	0.0
2	0.3 TO 0.45	50.0	0.0	40.0	50.0	50.0	200.0
3	0.45 TO 0.60	80.0	0.0	50.0	50.0	50.0	200.0
4	0.60 TO 0.75	90.0	0.0	55.6	50.0	50.0	200.0
5	GREATER THAN .75	100.0	0.0	60.0	50.0	50.0	200.0

OPERATIONS SUMMARY :
****

ELEMENT INFORMATION DISPLAYS REQUESTED :

TYPE	GEOMETRY	KINEMATIC	OPERATION	INFLOW
CATCHMENT	X	X	--	X
STREAM	X	X	--	X
RESERVOIR	X	--	X	X
PIPE	X	X	--	X

RUN DISPLAYS REQUESTED :

TITLE	ON
REAL	OFF
DIMENSIONLESS	OFF
GRID	OFF

GENERAL INFORMATION DISPLAYS REQUESTED :

ECHO 'RINT PRIMARY COMMANDS	ON
SEGMENT CONNECTIVITY	ON
RAINFALL PATTERNS	ON
UPSTREAM INFLOW PATTERNS	ON
EVAPORATION DATA	ON
LAND USE DATA	ON
COMPRESSED FORM OF DISPLAY	ON
SEPARATE SUMMARY PAGE HEADER	OFF

OPERATION CONTROLS :

MAXIMUM SAMPLING TIME ON INFLOW HYDROGRAPHS	: 10.00 MIN.
MAXIMUM ELEMENT OPERATING TIME	: 60.00 MIN.
MINIMUM ELEMENT OPERATING TIME	: 2.00 MIN.
BASIN CONCENTRATION TIME	: 0.0 MIN.
PERCENT OF PEAK FOR ELEMENT DISCHARGE CUTOFF	: 10.00 %
TYPE OF EXTRAPOLATION REQUESTED	: CONSTANT
EXTRAPOLATION POSITIVE CONTROL	: ON
LENGTH OF TIME TO BE SIMULATED	: 180.0 MIN.

RUN TERMINATION :

NODE 1 5

CATCHMENT 1 5 - CATCH 5

CATCHMENT: 5 - - CATCH 5 - - LATERAL INFLOW

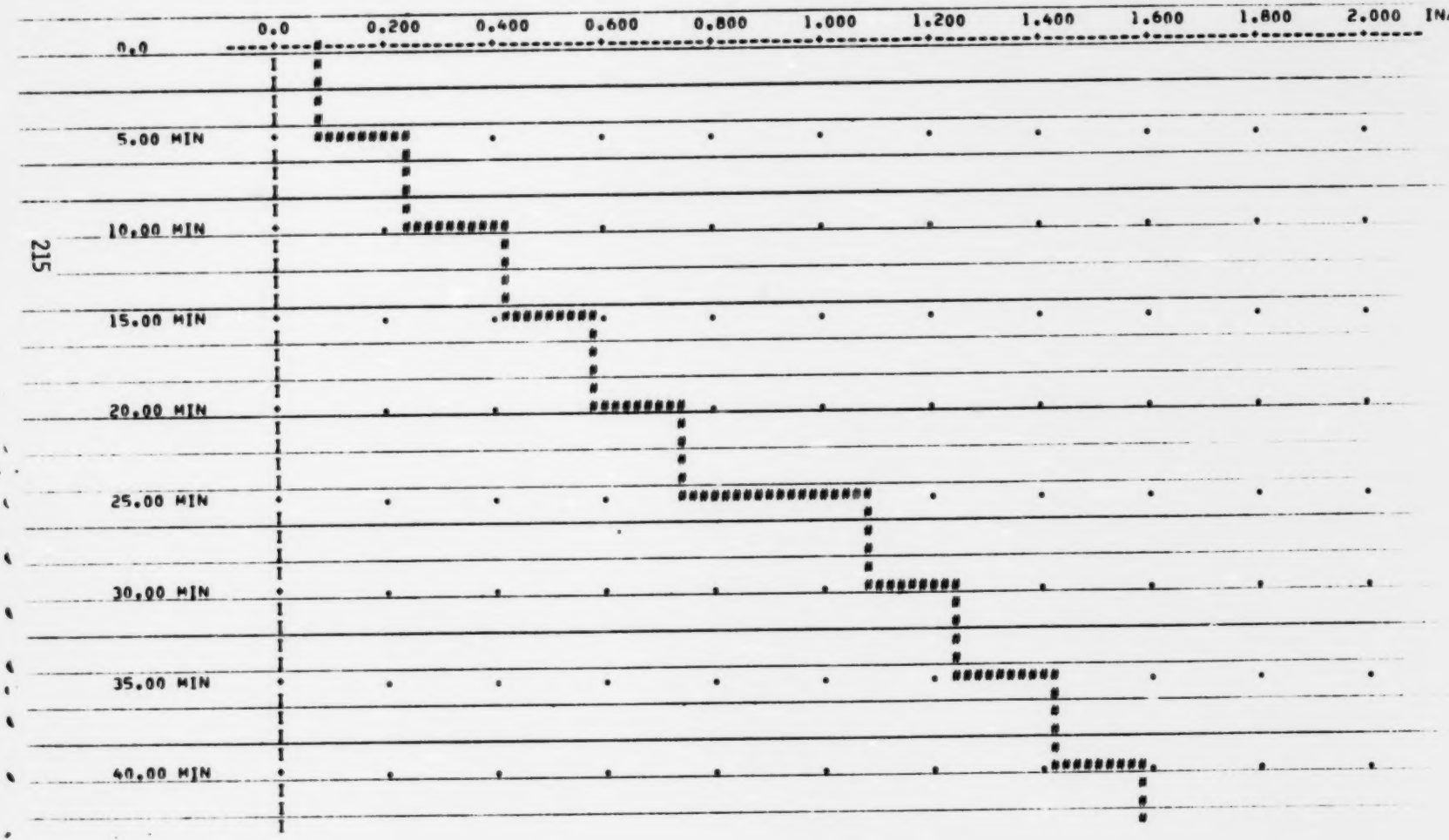
TIME (MINS)	TOTAL RAINFALL (IN/HR)	EFFECTIVE RAINFALL (IN/HR)
0.0	0.083000	0.083000
5.000	0.250000	0.250000
10.000	0.417000	0.417000
15.000	0.583000	0.583000
20.000	0.750000	0.750000
25.000	1.082998	1.082998
30.000	1.249999	1.249999
35.000	1.416999	1.416999
40.000	1.582998	1.582998
45.000	1.749999	1.749999
50.000	1.916999	1.916999
55.000	1.916999	1.916999
60.000	1.749999	1.749999
65.000	1.582998	1.582998
70.000	1.416999	1.416999
75.000	1.249999	1.249999
80.000	1.082998	1.082998
85.000	0.917000	0.917000
90.000	0.750000	0.750000
95.000	0.583000	0.583000
100.000	0.417000	0.417000
105.000	0.250000	0.250000
110.000	0.083000	0.083000
115.000	0.0	0.0

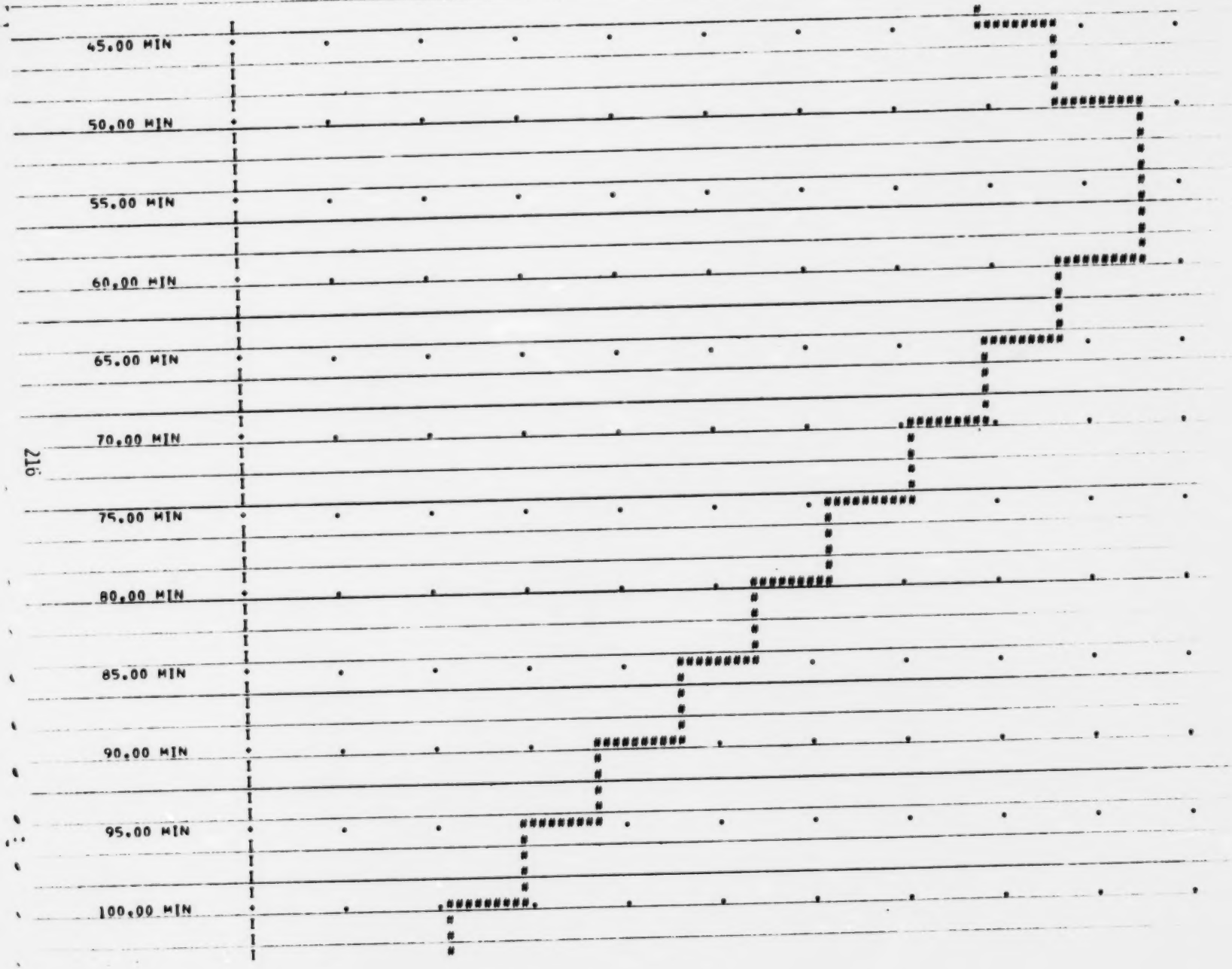
MITCAT RUNS FOR HYPOTHETICAL CATCHMENTS - - MITCAT CATCH NO. 2 - - STORM NO. 3

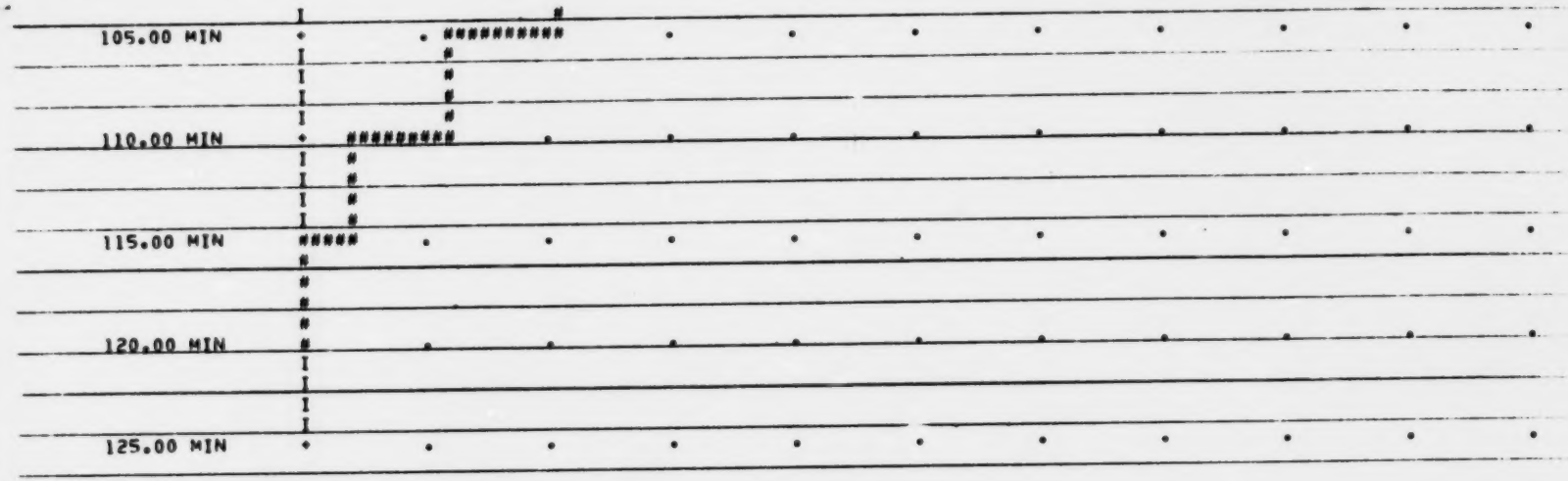
LAT INFLOW TO CATCHMENT-CATCH 5 - NO 1 5. - - M.I.T. CATCHMENT MODEL

PLOT * -- TOTAL RAINFALL APPLIED (IN/H)

PLOT # -- EFFECTIVE RAINFALL APPLIED (IN/H)




45.00 MIN
50.00 MIN
55.00 MIN
60.00 MIN
65.00 MIN
70.00 MIN
75.00 MIN
80.00 MIN
85.00 MIN
90.00 MIN
95.00 MIN
100.00 MIN



LAT INFLOW TO CATCHMENT-CATCH 5 - NO : 5. - - M.I.T. CATCHMENT MODEL

****

****

C A T C H M E N T: 1 - - CATCH 1 - - OUTPUT

****

TIME (HOUR)	DISCHARGE (CUSECS/FT)
0.0	0.0
0.203	0.0
0.406	0.0
0.610	0.000036
0.813	0.000348
1.016	0.001102
1.219	0.001928
1.423	0.002548
1.626	0.002811
1.829	0.002677
2.032	0.002161
2.236	0.001663
2.439	0.001203
2.642	0.000802
2.845	0.000474
3.049	0.000226

****

DATASET WRITTEN ON FILE <TESTFILE> <DISCHARG>. HEADER BELOW.

08/22/7416.10.14DISCHARGE FROM CATCH. - CATCH 1 1 1 1 3 02402
160.0 20410010 00.0 0.3048731E 01
CATCHMENT : 11 - CATCH 11

END OF RUN FOR 08/22/74 AT 16.10.14

SYSTEM TERMINATED AT STREAM NUMBER 902 IN NODE 902

(REQUESTED TERMINATION WAS AT STREAM NUMBER 902)

TOTAL RUN VOLUMES :

INIT. SURF. VOLUME	0.0		AC.FT.
UPSTREAM INFLOW	0.0		AC.FT.
LATERAL INFLOW	0.0291		AC.FT.
TOTAL INFLOW		0.0291	AC.FT.
ROUTED OUTFLOW	0.0083		AC.FT.
VOLUME INFILTRATED	0.0197		AC.FT.
TOTAL OUTFLOW		0.0280	AC.FT.
REM. SURF. VOLUME	0.0014		AC.FT.
VOLUME EVAPORATED	0.0		AC.FT.
TOT. ACCOUNTED FOR		0.0295	AC.FT.

RUN LOSSES :

VOLUME GAINED ...	0.0004	AC.FT.
	1.4036	PER CENT.

-- RUN TERMINATED ON 08/22/74 AT 16.11.20 --

FINAL SUMMARY OF VOLUMES:

NUMBER	NAME	TIME STEP (MINS)	INFLOW VOLUMES SURFACE (AC.FT)	INFLOW VOLUMES UPSTREAM (AC.FT)	INFLOW VOLUMES LATERAL (AC.FT)	INFILTRATION VOLUME (AC.FT)	INFILTRATION PERCENT (INFLOW)	OUTFLOW VOLUMES RUNOFF (AC.FT)	OUTFLOW VOLUMES PERCENT (INFLOW)	OUTFLOW VOLUMES SURFACE (AC.FT)
CATCHMENTS										
1	CATCH 1	12.19	0.0	0.0	0.001840	0.001452	78.94	0.000299	16.27	0.000138
6	CATCH 6	3.06	0.0	0.0	0.001840	0.001048	56.97	0.000778	42.30	0.0
11	CATCH 11	12.19	0.0	0.0	0.001840	0.001396	75.85	0.000341	18.53	0.000156
16	CATCH 16	3.06	0.0	0.0	0.001840	0.000980	53.27	0.000846	45.96	0.0
21	CATCH 21	18.48	0.0	0.0	0.003680	0.003128	85.00	0.000275	7.46	0.000505
26	CATCH 26	4.64	0.0	0.0	0.003680	0.002254	61.24	0.001383	37.59	0.0
31	CATCH 31	18.48	0.0	0.0	0.003680	0.002995	81.39	0.000326	8.86	0.000597
36	CATCH 36	4.64	0.0	0.0	0.003680	0.002128	57.81	0.001508	40.97	0.0
41	CATCH 41	6.11	0.0	0.0	0.000581	0.000396	68.03	0.000182	31.37	0.0
46	CATCH 46	2.00	0.0	0.0	0.000581	0.000305	52.53	0.000272	46.71	0.0
51	CATCH 51	6.11	0.0	0.0	0.000581	0.000374	64.30	0.000204	35.06	0.0
56	CATCH 56	2.00	0.0	0.0	0.000581	0.000281	48.31	0.000296	50.88	0.0
61	CATCH 61	9.26	0.0	0.0	0.001163	0.000873	75.07	0.000280	24.05	0.000023
66	CATCH 66	2.33	0.0	0.0	0.001163	0.000640	55.06	0.000512	44.02	0.0
71	CATCH 71	9.26	0.0	0.0	0.001163	0.000841	72.29	0.000309	26.59	0.000027
76	CATCH 76	2.33	0.0	0.0	0.001163	0.000593	51.00	0.000559	48.03	0.0
	TOTALS :		0.0	0.0	0.029057	0.019683	67.74	0.008369	28.80	0.001446
STREAMS										
1	STRM 1	0.0	0.0	0.0	0.00	0.0	0.0	0.00	156.04	0.0
6	STRM 6	0.0	0.0	0.0	0.00	0.0	0.0	0.00	101.72	0.0
21	STRM 21	0.0	0.0	0.0	0.00	0.0	0.0	0.00	160.47	0.0
26	STRM 26	0.0	0.0	0.0	0.00	0.0	0.0	0.00	107.35	0.0
41	STRM 41	0.0	0.0	0.0	0.00	0.0	0.0	0.00	117.79	0.0
46	STRM 46	0.0	0.0	0.0	0.00	0.0	0.0	0.00	100.00	0.0
61	STRM 61	0.0	0.0	0.0	0.00	0.0	0.0	0.00	142.13	0.0
66	STRM 66	0.0	0.0	0.0	0.00	0.0	0.0	0.00	100.49	0.0
100	STRM 100	0.0	0.0	0.00	0.0	0.0	0.0	0.00	100.01	0.0
210	STRM 210	0.0	0.0	0.00	0.0	0.0	0.0	0.00	100.01	0.0
410	STRM 410	0.0	0.0	0.00	0.0	0.0	0.0	0.00	100.00	0.0
610	STRM 610	0.0	0.0	0.00	0.0	0.0	0.0	0.00	100.01	0.0
900	STRM 900	0.0	0.0	0.01	0.0	0.0	0.0	0.01	100.01	0.0
901	STRM 901	0.0	0.0	0.00	0.0	0.0	0.0	0.00	100.00	0.0
902	STRM 902	0.0	0.0	0.01	0.0	0.0	0.0	0.01	100.00	0.0
	TOTALS :		0.0	0.02	0.01	0.0	0.0	0.03	102.80	0.0

CATCHMENTS:

NUMBER	NAME	MAXIMUM VALUES		
		OUTFLOW	STAGE	TIME TO PEAK
		(CFS)	(FT)	(MINS)
1	CATCH 1	0.00281	0.0802	97.56
6	CATCH 6	0.01245	0.0492	70.45
11	CATCH 11	0.00313	0.0855	97.56
16	CATCH 16	0.01327	0.0511	67.39
21	CATCH 21	0.00247	0.0742	92.42
26	CATCH 26	0.01966	0.0647	83.57
31	CATCH 31	0.00282	0.0803	92.42
36	CATCH 36	0.02122	0.0677	78.93
41	CATCH 41	0.00230	0.0712	85.53
46	CATCH 46	0.00473	0.0275	60.00
51	CATCH 51	0.00256	0.0758	85.53
56	CATCH 56	0.00495	0.0283	60.00
61	CATCH 61	0.00289	0.0815	92.60
66	CATCH 66	0.00857	0.0393	65.13
71	CATCH 71	0.00317	0.0861	92.60
76	CATCH 76	0.00910	0.0408	65.13

STREAMS:
========

NUMBER	NAME	MAXIMUM VALUES				TIME TO	FLAG/CHECK VALUES							
		OUTFLOW	STAGE	VEL.	TR.FORCE	PEAK	OUTFLOW	T.E.	DEPTH	T.E.	VELOCITY	T.E.	TR.FORCE	T.E.
		(CFS)	(FT)	(FPS)	(LB/SQ.FT)	(MINS)	(CFS)	(MINS)	(FT.)	(MINS)	(FPS)	(MINS)	(LB/SQ.FT)	(MINS)
1	STRM 1	0.01	N.A.	N.A.	N.A.	97.56	N.A.	--	N.A.	--	N.A.	--	N.A.	--
6	STRM 6	0.03	N.A.	N.A.	N.A.	70.45	N.A.	--	N.A.	--	N.A.	--	N.A.	--
21	STRM 21	0.01	N.A.	N.A.	N.A.	92.42	N.A.	--	N.A.	--	N.A.	--	N.A.	--
26	STRM 26	0.04	N.A.	N.A.	N.A.	78.93	N.A.	--	N.A.	--	N.A.	--	N.A.	--
41	STRM 41	0.00	N.A.	N.A.	N.A.	85.53	N.A.	--	N.A.	--	N.A.	--	N.A.	--
46	STRM 46	0.01	N.A.	N.A.	N.A.	60.00	N.A.	--	N.A.	--	N.A.	--	N.A.	--
61	STRM 61	0.01	N.A.	N.A.	N.A.	92.60	N.A.	--	N.A.	--	N.A.	--	N.A.	--
66	STRM 66	0.02	N.A.	N.A.	N.A.	65.13	N.A.	--	N.A.	--	N.A.	--	N.A.	--
100	STRM 100	0.03	N.A.	N.A.	N.A.	70.45	N.A.	--	N.A.	--	N.A.	--	N.A.	--
210	STRM 210	0.05	N.A.	N.A.	N.A.	83.57	N.A.	--	N.A.	--	N.A.	--	N.A.	--
410	STRM 410	0.01	N.A.	N.A.	N.A.	64.00	N.A.	--	N.A.	--	N.A.	--	N.A.	--
610	STRM 610	0.02	N.A.	N.A.	N.A.	69.78	N.A.	--	N.A.	--	N.A.	--	N.A.	--
900	STRM 900	0.07	N.A.	N.A.	N.A.	79.64	N.A.	--	N.A.	--	N.A.	--	N.A.	--
901	STRM 901	0.03	N.A.	N.A.	N.A.	66.00	N.A.	--	N.A.	--	N.A.	--	N.A.	--
902	STRM 902	0.10	N.A.	N.A.	N.A.	76.00	N.A.	--	N.A.	--	N.A.	--	N.A.	--

KEY:

T.E. = TIME IN EXCESS
N.A. = NOT APPLICABLE
(W) = WET CHANNEL LIMIT
(O) = OVERBANK LIMIT

MASSACHUSETTS INSTITUTE OF TECHNOLOGY URBAN WATERSHED MODEL

INPUT DATA LISTING FOR HYPOTHETICAL PIPE SIMULATION
(INPUT FOR 1-HR TRIANGULAR INFLOW IS SHOWN SINCE INPUT FOR 2-HR TRIANGULAR INFLOW WAS NOT FURNISHED)

```
BATTELLE PIPES - UPSTREAM AND DOWNSTREAM CONTROL - INPUT SHAPE 2 - 1HR TRIANGULA
RESERVOIR NUMB 1 NAME RESV1 ALPHA .0796 M 1.00 ZREF 0. Z0 0.
ZP1 0. D1 24. INPUT 1 OUTLET INLET CD1 0.6
ZSPIL 11. LENGTH 12.57 CSPIL 999.99 FINISH
RESERVOIR NUMB 2 AS 1 NAME RESV2 INPUT 2 FINISH
RESERVOIR NUMB 3 AS 1 NAME RESV3 INPUT 3 FINISH
RESERVOIR NUMB 4 AS 1 NAME RESV4 ALPHA .00221 INPUT 4
          D1 144. ZSPIL 26. LENGTH 75.4 FINISH
RESERVOIR NUMB 5 AS 4 NAME RESV5 INPUT 5 FINISH
RESERVOIR NUMB 6 AS 4 NAME RESV6 INPUT 6 FINISH
PIPE NUMB 11 NAME P11 LENG 2000. CIRC DIM1 2. SLOP .0005 N .01          ITER 2.
MHAREA 12.5664 MHT 11
FINISH
PIPE NUMB 12 AS 11 NAME P12 UPST 0 MHAREA 0. MHT 0. FINISH
PIPE NUMB 13 AS 12 NAME P13 FINISH
PIPE NUMB 14 AS 12 NAME P14 FINISH
PIPE NUMB 15 AS 12 NAME P15 FINISH
PIPE NUMB 21 AS 11 NAME P21 SLOP .005
FINISH
PIPE NUMB 22 AS 21 NAME P22 UPST 0 MHAREA 0. MHT 0. FINISH
PIPE NUMB 23 AS 22 NAME P23 FINISH
PIPE NUMB 24 AS 22 NAME P24 FINISH
PIPE NUMB 25 AS 22 NAME P25 FINISH
PIPE NUMB 31 AS 11 NAME P31 SLOP .05
FINISH
PIPE NUMB 32 AS 31 NAME P32 UPST 0 MHAREA 0. MHT 0. FINISH
PIPE NUMB 33 AS 32 NAME P33 FINISH
PIPE NUMB 34 AS 32 NAME P34 FINISH
PIPE NUMB 35 AS 32 NAME P35 FINISH
PIPE NUMB 41 AS 11 NAME P41 SLOP .0005 DIM1 12.
MHAREA 452.3893 MHT 26.
FINISH
PIPE NUMB 42 AS 41 NAME P42 UPST 0 MHAREA 0. MHT 0. FINISH
PIPE NUMB 43 AS 42 NAME P43 FINISH
PIPE NUMB 44 AS 42 NAME P44 FINISH
PIPE NUMB 45 AS 42 NAME P45 FINISH
PIPE NUMB 51 AS 41 NAME P51 SLOP .005
FINISH
PIPE NUMB 52 AS 51 NAME P52 UPST 0 MHAREA 0. MHT 0. FINISH
PIPE NUMB 53 AS 52 NAME P53 FINISH
PIPE NUMB 54 AS 52 NAME P54 FINISH
PIPE NUMB 55 AS 52 NAME P55 FINISH
PIPE NUMB 61 AS 41 NAME P61 SLOP .05
FINISH
PIPE NUMB 62 AS 61 NAME P62 UPST 0 MHAREA 0. MHT 0. FINISH
PIPE NUMB 63 AS 62 NAME P63 FINISH
PIPE NUMB 64 AS 62 NAME P64 FINISH
PIPE NUMB 65 AS 62 NAME P65 FINISH
RESERVOIR NUMB 10 NAME RESV10 ALPHA .0059 M .7382 ZREF 0. Z0 0. ZSPIL 50.
          LENG 0. OUTLET WSE WZERO 0. DELH .25 DISCHARGE 0. .370 1.337 2.278
          3.782 4.970 6.661 8.495 10.06 10.94 11.75 12.50 13.21 13.89 14.53
          15.14 15.73 16.12 16.51 16.90 17.30 FINISH
RESERVOIR NUMB 20 NAME RESV20 ALPHA .0323 M .7384 ZREF 0. Z0 0. ZSPIL 50.
          LENG 0. OUTLET WSE WZERO 0. DELH .25 DISCHARGE 0. .370 1.337 2.278
```

Table C.2 Input Data for Pipes Run- Boundary Condition #2- Inflow Shape 2

```
        3.782 4.970 6.661 8.495 10.06 10.94 11.75 12.50 13.21 13.89 14.53
        15.14 15.73 16.12 16.51 16.90 17.30 FINISH
RESERVOIR NUMB 30 NAME RESV30 ALPHA .1765 M .7346 ZREF 0. Z0 0. ZSPIL 50.
        LENG 0. OUTLET WSE WZERO 0. DELH .25 DISCHARGE 0. .370 1.337 2.278
        3.782 4.970 6.661 8.495 10.06 10.94 11.75 12.50 13.21 13.89 14.53
        15.14 15.73 16.12 16.51 16.90 17.30 FINISH
RESERVOIR NUMB 40 NAME RESV40 ALPHA .00103 M .7018 ZREF 0. Z0 0. ZSPIL 100.
        LENG 0. OUTLET WSE WZERO 0. DELH 1. DISCHARGE 0. 14.914 96.178 117.90
        198.83 271.07 333.47 396.03 484.97 585.37 695.46 801.47 887.15 939.70
        989.21 1036.20 1081.03 1123.97 1165.26 1205.09 1243.59 1280.91
        1317.13 1352.37 1386.69 1408.68 1430.67 1452.66 1474.65 FINISH
RESERVOIR NUMB 50 NAME RESV50 ALPHA .00496 M .7080 ZREF 0. Z0 0. ZSPIL 100.
        LENG 0. OUTLET WSE WZERO 0. DELH 1. DISCHARGE 0. 14.914 96.178 117.90
        198.83 271.07 333.47 396.03 484.97 585.37 695.46 801.47 887.15 939.70
        989.21 1036.20 1081.03 1123.97 1165.26 1205.09 1243.59 1280.91
        1317.13 1352.37 1386.69 1408.68 1430.67 1452.66 1474.65 FINISH
RESERVOIR NUMB 60 NAME RESV60 ALPHA .02530 M .7080 ZREF 0. Z0 0. ZSPIL 100.
        LENG 0. OUTLET WSE WZERO 0. DELH 1. DISCHARGE 0. 14.914 96.178 117.90
        198.83 271.07 333.47 396.03 484.97 585.37 695.46 801.47 887.15 939.70
        989.21 1036.20 1081.03 1123.97 1165.26 1205.09 1243.59 1280.91
        1317.13 1352.37 1386.69 1408.68 1430.67 1452.66 1474.65 FINISH
STREAM NUMB 220 NAME SPLIT2  DUMMY SPIL DUMP QOSPIL 50.17 DELQ 100.
        QSPIL 0. 100. 200. 300. 400. FINISH
STREAM NUMB 230 NAME SPLIT3  DUMMY SPIL DUMP QOSPIL 50.17 DELQ 100.
        QSPIL 0. 100. 200. 300. 400. FINISH
STREAM NUMB 250 NAME SPLIT5  DUMMY SPILL DUMP QOSPIL 2776.73 DELQ 1000.
        QSPIL 0. 1000. 2000. 3000. 4000. FINISH
STREAM NUMB 260 NAME SPLIT6  DUMMY SPILL DUMP QOSPIL 2776.73 DELQ 1000.
        QSPIL 0. 1000. 2000. 3000. 4000. FINISH
STREAM NUMB 110 NAME SPLIT10 DUMMY SPIL DUMP QOSPIL 3.782 DELQ 1. QSPIL 0.
        .7506 1.5012 2.2518 3.0024 FINISH
STREAM NUMB 120 NAME SPLIT20 DUMMY SPIL DUMP QOSPIL 3.782 DELQ 1. QSPIL 0.
        .7506 1.5012 2.2518 3.0024 FINISH
STREAM NUMB 130 NAME SPLIT30 DUMMY SPIL DUMP QOSPIL 3.782 DELQ 1. QSPIL 0.
        .7506 1.5012 2.2518 3.0024 FINISH
STREAM NUMB 140 NAME SPLIT40 DUMMY SPIL DUMP QOSPIL 333.47 DELQ 100. QSPIL 0.
        75.06 150.12 225.18 300.24 FINISH
STREAM NUMB 150 NAME SPLIT50 DUMMY SPIL DUMP QOSPIL 333.47 DELQ 100. QSPIL 0.
        75.06 150.12 225.18 300.24 FINISH
STREAM NUMB 160 NAME SPLIT60 DUMMY SPIL DUMP QOSPIL 333.47 DELQ 100. QSPIL 0.
        75.06 150.12 225.18 300.24 FINISH
STREAM NUMB 100 NAME LINK DUMMY FINISH
STREAM NUMB 900 NAME END DUMMY FINISH
NODE
NODE 10 R 10 NODE 20 R 20 NODE 30 R 30 NODE 40 R 40 NODE 50 R 50 NODE 60 R 60
NODE 11 P 11 NODE 12 P 12 NODE 13 P 13 NODE 14 P 14 NODE 15 P 15
NODE 21 P 21 NODE 22 P 22 NODE 23 P 23 NODE 24 P 24 NODE 25 P 25
NODE 31 P 31 NODE 32 P 32 NODE 33 P 33 NODE 34 P 34 NODE 35 P 35
NODE 41 P 41 NODE 42 P 42 NODE 43 P 43 NODE 44 P 44 NODE 45 P 45
NODE 51 P 51 NODE 52 P 52 NODE 53 P 53 NODE 54 P 54 NODE 55 P 55
NODE 61 P 61 NODE 62 P 62 NODE 63 P 63 NODE 64 P 64 NODE 65 P 65
NODE 220 S 220 NODE 230 S 230 NODE 250 S 250 NODE 260 S 260
NODE 110 S 110 NODE 120 S 120 NODE 130 S 130 NODE 140 S 140 NODE 150 S 150
        NODE 160 S 160
NODE 100 S 100 NODE 200 S 100 NODE 300 S 100 NODE 400 S 100 NODE 500 S 100
NODE 1 P 1 NODE 2 P 2 NODE 3 P 3 NODE 4 P 4 NODE 5 P 5 NODE 6 P 6
NODE 900 S 900
FINISH
CONNECTIVITY
NODE 15 LINK 14 NODE 14 LINK 13 NODE 13 LINK 12 NODE 12 LINK 11
```

Input Data for Pipes Run- Boundary Condition #2- Inflow Shape 2 con't

```
NODE 25 LINK 24 NODE 24 LINK 23 NODE 23 LINK 22 NODE 22 LINK 21
NODE 35 LINK 34 NODE 34 LINK 33 NODE 33 LINK 32 NODE 32 LINK 31
NODE 45 LINK 44 NODE 44 LINK 43 NODE 43 LINK 42 NODE 42 LINK 41
NODE 55 LINK 54 NODE 54 LINK 53 NODE 53 LINK 52 NODE 52 LINK 51
NODE 65 LINK 64 NODE 64 LINK 63 NODE 63 LINK 62 NODE 62 LINK 61
NODE 11 LINK 1 NODE 21 LINK 220 NODE 31 LINK 230 NODE 41 LINK 4 NODE 51 LINK 250
        NODE 61 LINK 260
NODE 220 LINK 2 NODE 230 LINK 3 NODE 250 LINK 5 NODE 260 LINK 6
NODE 10 LINK 15 NODE 20 LINK 25 NODE 30 LINK 35 NODE 40 LINK 45 NODE 50 LINK 55
        NODE 60 LINK 65
NODE 110 LINK 10 NODE 120 LINK 20 NODE 130 LINK 30 NODE 140 LINK 40
        NODE 150 LINK 50 NODE 160 LINK 60
NODE 100 LINK 110 NODE 200 LINK 120 100 NODE 300 LINK 130 200
        NODE 400 LINK 140 300 NODE 500 LINK 150 400 NODE 900 LINK 160 500
FINISH
INFLOW TYPE 1 UPSTREAM DELT 5. INTEN
0.59 0.59 0.59 0.59 0.59 0.59
.59 1.48 2.37 3.26 4.15 5.04 5.94 5.04 4.15 3.26 2.37 1.48  .59
FINISH
INFLOW TYPE 2 UPSTREAM DELT 5. INTEN
1.88 1.88 1.88 1.88 1.88 1.88
1.88 4.70 7.52 10.34 13.16 15.98 18.77 15.98 13.16 10.34 7.52 4.70 1.88
FINISH
INFLOW TYPE 3 UPSTREAM DELT 5. INTEN
5.93 5.93 5.93 5.93 5.93 5.93
5.93 14.43 23.73 32.63 41.53 50.43 59.35 50.43 41.53 32.63 23.73 14.83 5.93
FINISH
INFLOW TYPE 4 UPSTREAM DELT 5. INTEN
70.54 70.54 70.54 70.54 70.54 70.54
70.54 176.35 282.16 387.97 493.78 599.59 705.41 599.59 493.78 387.97 282.16
176.35 70.54
FINISH
INFLOW TYPE 5 UPSTREAM DELT 5. INTEN
223.07 223.07 223.07 223.07 223.07 223.07
223.07 557.68 892.29 1226.90 1561.51 1896.12 2230.70 1896.12 1561.51 1226.90
892.29 557.68 223.07
FINISH
INFLOW TYPE 6 UPSTREAM DELT 5. INTEN
705.42 705.42 705.42 705.42 705.42  705.42
705.42 1763.55 2821.68 3879.81 4937.94 5996.07 7054.20 5996.07 4937.94 3879.81
2821.68 1763.55 705.42
FINISH
CONTROL DTMIN 5. INFLOW 10. TMAX 270. FINISH
HYDROGRAPHS FILE FILE7 OFF      STORE PIPE OUTPUT 15 25 35 45 55 65
        RESERVOIRS OUTPUT 10 20 30 40 50 60 1 2 3 4 5 6
        PRINT STREAMS OUTPUT 110 120 130 140 150 160 220 230 250 260 FINISH
HYDROGRAPHS OFF PRINT RESERVOIR UPSTREAM 1 2 3 4 5 6 FINISH
TERMINATE 'NODE' 900 FINISH
DISPLAY ALL FINISH
GO
GOODBYE
```

Input Data for Pipes Run- Boundary Condition #2 - Inflow Shape 2 con't

MASSACHUSETTS INSTITUTE OF TECHNOLOGY URBAN WATERSHED MODEL

SELECTED OUTPUT OF HYPOTHETICAL PIPE SIMULATION

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C A T C H M E N T   A N A L Y S I S

BRENDAN  M.  HARLEY          MASSACHUSETTS INSTITUTE OF TECHNOLOGY          1972

BATTELLE PIPES - UPSTREAM & DOWNSTREAM CONTROL - INPUT SHAPE 3 - 2HR TRIANGULAR

D A T E :  10/17/74          VERSION  6          T I M E :  18.35.38
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RESOURCE ANALYSIS, INC.
1033 MASSACHUSETTS AVENUE
CAMBRIDGE, MASS., USA
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INFLOW
INFLOW
INFLOW
CONTROL
HYDROGRAPHS
HYDROGRAPHS
TERMINATE
DISPLAY
GO

 *** CONNEC *** AUTO SET OF TERMINATING ELEMENT..
                RUN WILL NOW TERMINATE AT STREAM    NO.   900 IN NODE   900 ...

 *** CONNEC *** OUTPUT FROM FINAL ELEMENT -- << STREAM     900 >> -- RESET TO DISPLAY OUTPUT....
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OVERALL SYSTEM SUMMARY
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NODES/SUBSYSTEMS :

NO.NODES : 58
NO.SUBSYSTEMS : 34

NO.1ST.ORDER CATCHMENTS : 0
NO.STREAM SEGMENTS : 16
NO.RESERVOIR SEGMENTS : 12
NO.PIPES SEGMENTS : 30

SUBSYSTEM USAGE :

CATCHMENTS:	NAME	USAGE
	NONE	ZERO

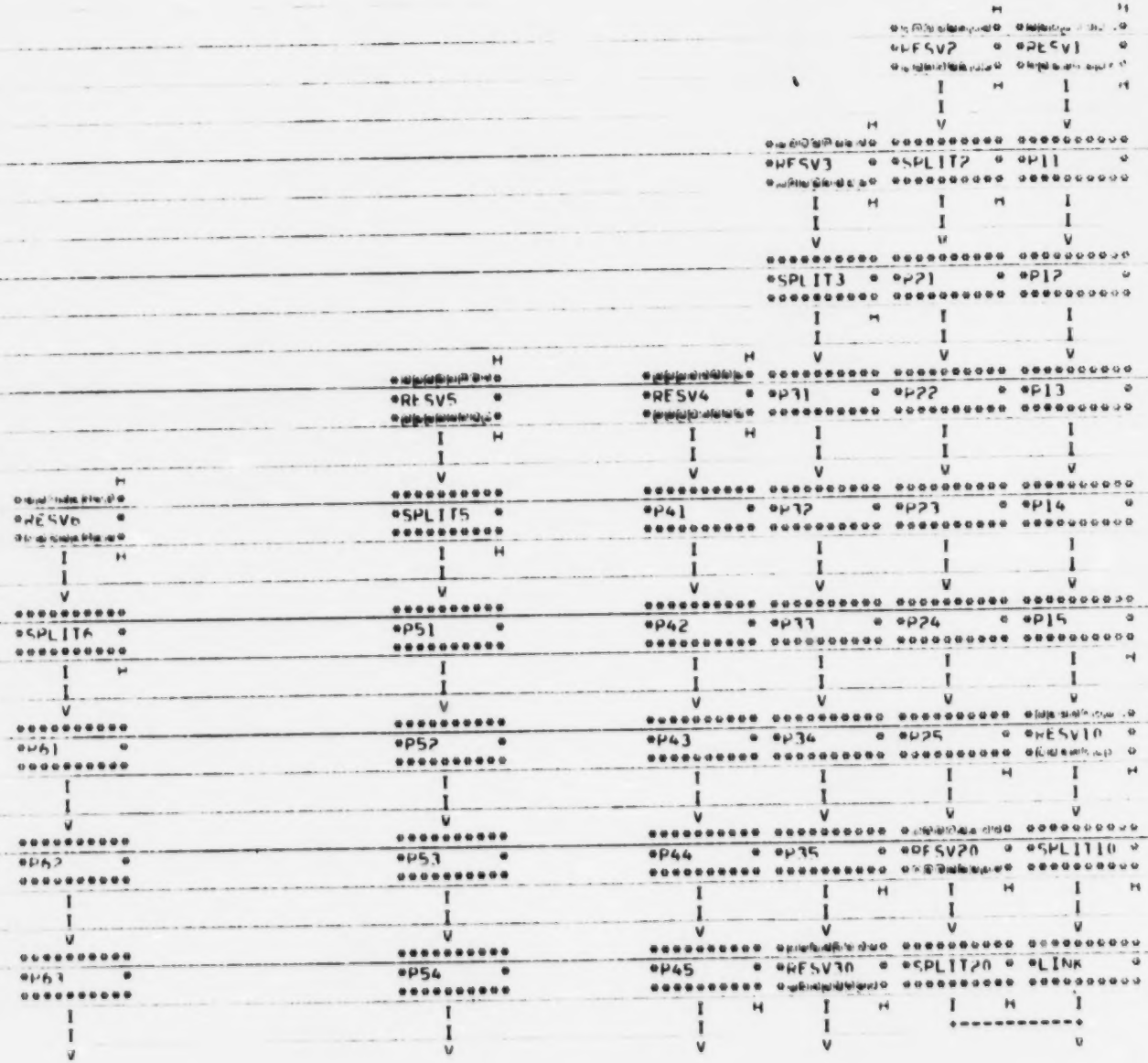
STREAMS :	NAME	USAGE
	220	1
	230	1
	250	1
	260	1
	110	1
	120	1
	130	1
	140	1
	150	1
	160	1
	100	5
	400	1

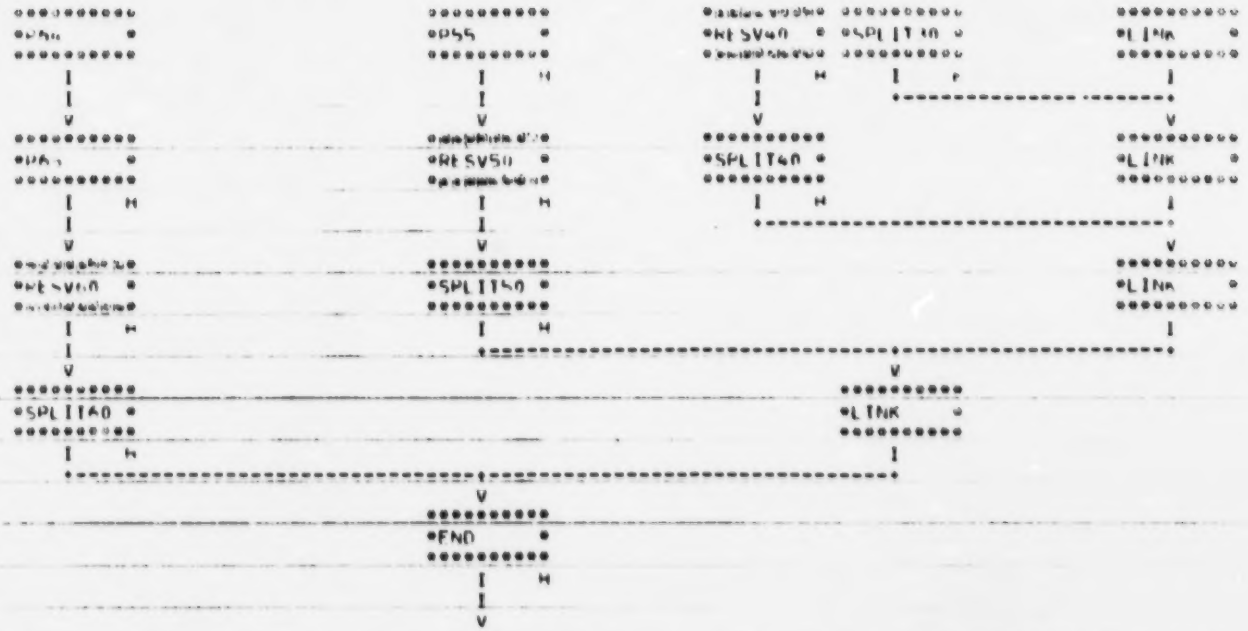
RESERVOIRS:	NAME	USAGE
	10	1
	20	1
	30	1
	40	1
	50	1
	60	1
	1	1
	2	1
	3	1
	4	1
	5	1
	6	1

PIPES :	NAME	USAGE
	11	1
	12	1
	13	1
	14	1
	15	1
	21	1
	22	1
	23	1
	24	1

25	1
31	1
32	1
33	1
34	1
35	1
41	1
42	1
43	1
44	1
45	1
51	1
52	1
53	1
54	1
55	1
61	1
62	1
63	1
64	1
65	1

SEGMENT CONNECTIVITY :





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***********                 ***********          ***********  ***********          ***********
*P54      *                 *P55      *          *RESV40   *  *SPLIT30  *          *LINK     *
***********                 ***********          ***********  ***********          ***********
    I                           I    H               I    H     I    F                  I
    I                           I                    I          +-------------------+
    V                           V                    V                                V
***********                 ***********          ***********                       ***********
*P65      *                 *RESV50   *          *SPLIT40  *                       *LINK     *
***********                 ***********          ***********                       ***********
    I    H                      I    H               I    H                            I
    I                           I                    +-------------------------------+
    V                           V                                                      V
***********                 ***********                                            ***********
*RESV60   *                 *SPLIT50  *                                            *LINK     *
***********                 ***********                                            ***********
    I    H                      I    H                                                 I
    I                           +-------------------------------+-------------------+
    V                                                           V
***********                                                 ***********
*SPLIT60  *                                                 *LINK     *
***********                                                 ***********
    I    H                                                      I
    +-------------------------------+-------------------------+
                                    V
                             ***********
                             *END      *
                             ***********
                                I    H
                                I
                                V
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NODE INFRA-STRUCTURE :

NAME	NODE NO	SCHEMATIC	TOTAL AREA (ACRES)	IMPERVIOUS AREA (ACRES)	PERVIOUS AREA (ACRES)
END	900	S900	0.0	0.0	0.0
LINK	200	S100	0.0	0.0	0.0
LINK	300	S100	0.0	0.0	0.0
LINK	400	S100	0.0	0.0	0.0
LINK	500	S100	0.0	0.0	0.0
LINK	100	S100	0.0	0.0	0.0
P11	11	P 11	0.0	0.0	0.0
P12	12	P 12	0.0	0.0	0.0
P13	13	P 13	0.0	0.0	0.0
P14	14	P 14	0.0	0.0	0.0
P15	15	P 15	0.0	0.0	0.0
P21	21	P 21	0.0	0.0	0.0
P22	22	P 22	0.0	0.0	0.0
P23	23	P 23	0.0	0.0	0.0
P24	24	P 24	0.0	0.0	0.0
P25	25	P 25	0.0	0.0	0.0
P31	31	P 31	0.0	0.0	0.0
P32	32	P 32	0.0	0.0	0.0
P33	33	P 33	0.0	0.0	0.0
P34	34	P 34	0.0	0.0	0.0
P35	35	P 35	0.0	0.0	0.0
P41	41	P 41	0.0	0.0	0.0
P42	42	P 42	0.0	0.0	0.0
P43	43	P 43	0.0	0.0	0.0

NODE INFRA-STRUCTURE :

NAME	NODE NO	SCHEMATIC	TOTAL AREA (ACRES)	IMPERVIOUS AREA (ACRES)	PERVIOUS AREA (ACRES)
P44	44	P 44	0.0	0.0	0.0
P45	45	P 45	0.0	0.0	0.0
P51	51	P 51	0.0	0.0	0.0
P52	52	P 52	0.0	0.0	0.0
P53	53	P 53	0.0	0.0	0.0
P54	54	P 54	0.0	0.0	0.0
P55	55	P 55	0.0	0.0	0.0
P61	61	P 61	0.0	0.0	0.0
P62	62	P 62	0.0	0.0	0.0
P63	63	P 63	0.0	0.0	0.0
P64	64	P 64	0.0	0.0	0.0
P65	65	P 65	0.0	0.0	0.0
RESV1	1	R 1	0.0	0.0	0.0
RESV10	10	R 10	0.0	0.0	0.0
RESV2	2	R 2	0.0	0.0	0.0
RESV20	20	R 20	0.0	0.0	0.0
RESV3	3	R 3	0.0	0.0	0.0
RESV30	30	R 30	0.0	0.0	0.0
RESV4	4	R 4	0.0	0.0	0.0
RESV40	40	R 40	0.0	0.0	0.0
RESV5	5	R 5	0.0	0.0	0.0
RESV50	50	R 50	0.0	0.0	0.0
RESV6	6	R 6	0.0	0.0	0.0
RESV60	60	R 60	0.0	0.0	0.0

NODE INFRA-STRUCTURE :

NAME	NODE NO	SCHEMATIC	TOTAL AREA (ACRES)	IMPERVIOUS AREA (ACRES)	PERVIOUS AREA (ACRES)
SPLIT10	110	S110	0.0	0.0	0.0
SPLIT2	220	S220	0.0	0.0	0.0
SPLIT20	120	S120	0.0	0.0	0.0
SPLIT3	230	S230	0.0	0.0	0.0
SPLIT30	130	S130	0.0	0.0	0.0
SPLIT40	140	S140	0.0	0.0	0.0
SPLIT5	250	S250	0.0	0.0	0.0
SPLIT50	150	S150	0.0	0.0	0.0
SPLIT6	260	S260	0.0	0.0	0.0
SPLIT60	160	S160	0.0	0.0	0.0
TOTALS FOR THIS RUN :		AREAS IN ACRES :	0.0	0.0	0.0
		AREAS IN SQ. MILES :	0.0	0.0	0.0

STREAM GEOMETRY DATA :

NUMBER	NAME	COORDINATES			ACT.LENGTH	SLOPE	GRADIENT	X-SECTION	WIDTH/DIAM	SIDE SLOPE
		X	Y	Z	(FT)		(1 FT. IN)	SHAPE	(FT)	(1 FT. IN)
900	END	-	-	-	----- DUMMY -----			TRIANGULAR	-	25.0
100	LINK	-	-	-	----- DUMMY -----			TRIANGULAR	-	25.0
110	SPLIT10	-	-	-	----- DUMMY -----			TRIANGULAR	-	25.0
220	SPLIT2	-	-	-	----- DUMMY -----			TRIANGULAR	-	25.0
120	SPLIT20	-	-	-	----- DUMMY -----			TRIANGULAR	-	25.0
230	SPLIT3	-	-	-	----- DUMMY -----			TRIANGULAR	-	25.0
130	SPLIT30	-	-	-	----- DUMMY -----			TRIANGULAR	-	25.0
140	SPLIT40	-	-	-	----- DUMMY -----			TRIANGULAR	-	25.0
250	SPLIT5	-	-	-	----- DUMMY -----			TRIANGULAR	-	25.0
150	SPLIT50	-	-	-	----- DUMMY -----			TRIANGULAR	-	25.0
260	SPLIT6	-	-	-	----- DUMMY -----			TRIANGULAR	-	25.0
160	SPLIT60	-	-	-	----- DUMMY -----			TRIANGULAR	-	25.0

STREAM DATA - KINEMATIC :

NUMBER	NAME	EFF.LENGTH	MANNING	ALPHA		M	ROUTING SCHEME	CRITICAL CONDITIONS		
		(FT)	(N)	(ACTUAL)	(EFFECT.)			VEL(FT/S)	DISCH(CFS)	STAGE(FT)
900	END	-	0.015	0.303	0.303	1.333	---- DUMMY -----	-	-	-
100	LINK	-	0.015	0.303	0.303	1.333	---- DUMMY -----	-	-	-
110	SPLIT10	-	0.015	0.303	0.303	1.333	---- DUMMY -----	-	-	-
220	SPLIT2	-	0.015	0.303	0.303	1.333	---- DUMMY -----	-	-	-
120	SPLIT20	-	0.015	0.303	0.303	1.333	---- DUMMY -----	-	-	-
230	SPLIT3	-	0.015	0.303	0.303	1.333	---- DUMMY -----	-	-	-
130	SPLIT30	-	0.015	0.303	0.303	1.333	---- DUMMY -----	-	-	-
140	SPLIT40	-	0.015	0.303	0.303	1.333	---- DUMMY -----	-	-	-
250	SPLIT5	-	0.015	0.303	0.303	1.333	---- DUMMY -----	-	-	-
150	SPLIT50	-	0.015	0.303	0.303	1.333	---- DUMMY -----	-	-	-
260	SPLIT6	-	0.015	0.303	0.303	1.333	---- DUMMY -----	-	-	-
160	SPLIT60	-	0.015	0.303	0.303	1.333	---- DUMMY -----	-	-	-

STREAM DATA - ERODIBLE PARAMETERS :

NUMBER	NAME	PLASTIC INDEX	GRAIN SIZE (MM)	VEGETATED (%)	LIMITING TRACTIVE FORCES (LB/SQ.FT) WET	NO-VEG	100%-VEG	ACTUAL	INDICATOR CHECKED
100	END	12.0	-	0.0	-	-	-	-	VELOCITY
100	LINK	12.0	-	0.0	-	-	-	-	VELOCITY
110	SPLIT10	12.0	-	0.0	-	-	-	-	VELOCITY
220	SPLIT2	12.0	-	0.0	-	-	-	-	VELOCITY
120	SPLIT20	12.0	-	0.0	-	-	-	-	VELOCITY
230	SPLIT3	12.0	-	0.0	-	-	-	-	VELOCITY
130	SPLIT30	12.0	-	0.0	-	-	-	-	VELOCITY
140	SPLIT40	12.0	-	0.0	-	-	-	-	VELOCITY
250	SPLIT5	12.0	-	0.0	-	-	-	-	VELOCITY
150	SPLIT50	12.0	-	0.0	-	-	-	-	VELOCITY
260	SPLIT6	12.0	-	0.0	-	-	-	-	VELOCITY
160	SPLIT60	12.0	-	0.0	-	-	-	-	VELOCITY

STREAM SPILL DATA :

SPILL FROM NUMBER	NAME	SPILL TO TYPE	NUMBER	NAME	WEIR LENGTH	WEIR ELEV	COEFF DISCH	QZERO	DELTA Q	QSPILL	QSPIL2	QSPIL3	QSPIL4	QSPIL5	#POINTS
110	SPLIT10		DUMP		-	-	-	3.78	1.00	0.0	0.75	1.50	2.25	3.00	5.
220	SPLIT2		DUMP		-	-	-	50.17	100.00	0.0	100.00	200.00	300.00	400.00	5.
120	SPLIT20		DUMP		-	-	-	3.78	1.00	0.0	0.75	1.50	2.25	3.00	5.
230	SPLIT3		DUMP		-	-	-	50.17	100.00	0.0	100.00	200.00	300.00	400.00	5.
130	SPLIT30		DUMP		-	-	-	3.78	1.00	0.0	0.75	1.50	2.25	3.00	5.
140	SPLIT40		DUMP		-	-	-	333.47	100.00	0.0	75.06	150.12	225.18	300.24	5.
250	SPLIT5		DUMP		-	-	-	2776.73	1000.00	0.0	1000.00	2000.00	3000.00	4000.00	5.
150	SPLIT50		DUMP		-	-	-	333.47	100.00	0.0	75.06	150.12	225.18	300.24	5.
260	SPLIT6		DUMP		-	-	-	2776.73	1000.00	0.0	1000.00	2000.00	3000.00	4000.00	5.
160	SPLIT60		DUMP		-	-	-	333.47	100.00	0.0	75.06	150.12	225.18	300.24	5.

STREAM DATA - [illegible]

[illegible]	[illegible]	UPSTREAM INFLOW					INFLOW SCALING		BASE FLOW	RATING CURVE
		[illegible]	ELEMENT	[illegible]	FILE	TIME	TIME	[illegible]	(CFS)	USE?
[illegible]	[illegible]	-	-	-	-	-	-	-	-	NO
100	LINK	-	-	-	-	-	-	-	-	NO
110	SPLIT10	-	-	-	-	-	-	-	-	NO
120	SPLIT2	-	-	-	-	-	-	-	-	NO
130	SPLIT20	-	-	-	-	-	-	-	-	NO
140	SPLIT4	-	-	-	-	-	-	-	-	NO
150	SPLIT40	-	-	-	-	-	-	-	-	NO
160	SPLIT5	-	-	-	-	-	-	-	-	NO
170	SPLIT50	-	-	-	-	-	-	-	-	NO
180	SPLIT8	-	-	-	-	-	-	-	-	NO
190	SPLIT80	-	-	-	-	-	-	-	-	NO

CATCHMENT GEOMETRY DATA :
****

>>>>> NOW LOADED <<<<<

RESERVOIR GEOMETRY DATA :

FIGURE	NAME	STORAGE/ELEVATION			SPILLWAY			LOWER OUTLETS			UPPER OUTLETS		
		ALPHA	M	REF.ELEVN	ELEVN	LENGTH	CD	ELEVN	DIAMETER	NO	ELEVN	DIAMETER	NO
				(FT)	(FT)	(FT)		(FT)	(IN)		(FT)	(IN)	
1	RESV1	0.080	1.0000	0.0	11.00	12.5	7999.99	0.0	24.00	1	-	-	-
10	RESV10	0.006	0.7382	0.0	-	-	-	-	-	-	-	-	-
2	RESV2	0.080	1.0000	0.0	11.00	12.5	7999.99	0.0	24.00	1	-	-	-
20	RESV20	0.042	0.7384	0.0	-	-	-	-	-	-	-	-	-
3	RESV3	0.080	1.0000	0.0	11.00	12.5	7999.99	0.0	24.00	1	-	-	-
30	RESV30	0.170	0.7384	0.0	-	-	-	-	-	-	-	-	-
4	RESV4	0.002	1.0000	0.0	20.00	75.40	999.99	0.0	144.00	1	-	-	-
40	RESV40	0.001	0.7019	0.0	-	-	-	-	-	-	-	-	-
5	RESV5	0.002	1.0000	0.0	20.00	75.40	999.99	0.0	144.00	1	-	-	-
50	RESV50	0.005	0.7080	0.0	-	-	-	-	-	-	-	-	-
6	RESV6	0.002	1.0000	0.0	20.00	75.40	999.99	0.0	144.00	1	-	-	-
60	RESV60	0.125	0.7080	0.0	-	-	-	-	-	-	-	-	-

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RESERVOIR OPERATION :

FIGURE	NAME	ROUTING	OUTLET	DISCHARGES	INITIAL	CONSTANT DISCHARGES		LOWER OUTLET		UPPER OUTLET	
			TYPE	ADDITIVE ?	WSE	LOWER	UPPER	LEN/ELEVN*	SLPE/DIAM*	LEN/ELEVN*	SLPE/DIAM*
					(FT)	(CFS)	(CFS)	(FT)	-/(IN)	(FT)	-/(IN)
1	RESV1	STANDARD	INLET CONTRL	YES	0.0	-	-	-	-	-	-
10	RESV10	STANDARD	DISCH/ELEVN	YES	0.0	-	-	-	-	-	-
2	RESV2	STANDARD	INLET CONTRL	YES	0.0	-	-	-	-	-	-
20	RESV20	STANDARD	DISCH/ELEVN	YES	0.0	-	-	-	-	-	-
3	RESV3	STANDARD	INLET CONTRL	YES	0.0	-	-	-	-	-	-
30	RESV30	STANDARD	DISCH/ELEVN	YES	0.0	-	-	-	-	-	-
4	RESV4	STANDARD	INLET CONTRL	YES	0.0	-	-	-	-	-	-
40	RESV40	STANDARD	DISCH/ELEVN	YES	0.0	-	-	-	-	-	-
5	RESV5	STANDARD	INLET CONTRL	YES	0.0	-	-	-	-	-	-
50	RESV50	STANDARD	DISCH/ELEVN	YES	0.0	-	-	-	-	-	-
6	RESV6	STANDARD	INLET CONTRL	YES	0.0	-	-	-	-	-	-
60	RESV60	STANDARD	DISCH/ELEVN	YES	0.0	-	-	-	-	-	-

NUMBER	NAME	UPSTREAM INFLOW					INFLOW SCALING		OUTLETS		DISCHARGE COEFFS	
		SEGMENT	ELEMENT	NUMBER	FILE	TIME	TIME	INTEN.	RF	MANNING'S N	LOWER	UPPER
1	RESV1	-	-	1	-	-	-	-	-	-	0.60	0.0
10	RESV10	-	-	-	-	-	-	-	-	-	-	-
2	RESV2	-	-	2	-	-	-	-	-	-	0.60	0.0
20	RESV20	-	-	-	-	-	-	-	-	-	-	-
3	RESV3	-	-	3	-	-	-	-	-	-	0.60	0.0
30	RESV30	-	-	-	-	-	-	-	-	-	-	-
4	RESV4	-	-	4	-	-	-	-	-	-	0.60	0.0
40	RESV40	-	-	-	-	-	-	-	-	-	-	-
5	RESV5	-	-	5	-	-	-	-	-	-	0.60	0.0
50	RESV50	-	-	-	-	-	-	-	-	-	-	-
6	RESV6	-	-	6	-	-	-	-	-	-	0.60	0.0
60	RESV60	-	-	-	-	-	-	-	-	-	-	-

RESERVOIR DISCHARGE-ELEVATION CURVES :
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RESERVOIR NUMBER : 10 NAME : RESV10

ELEVATION FT	DISCHARGE CFS
0.0	0.0
0.25	0.37
0.50	1.34
0.75	2.88
1.00	3.78
1.25	4.97
1.50	6.66
1.75	8.49
2.00	10.06
2.25	10.94
2.50	11.75
2.75	12.50
3.00	13.21
3.25	13.89
3.50	14.53
3.75	15.14
4.00	15.73
4.25	16.12
4.50	16.51
4.75	16.90
5.00	17.30

RESERVOIR NUMBER : 20 NAME : RESV20

ELEVATION FT	DISCHARGE CFS
0.0	0.0
0.25	0.37
0.50	1.34
0.75	2.28
1.00	3.78
1.25	4.47
1.50	6.66
1.75	8.49
2.00	10.06
2.25	10.44
2.50	11.75
2.75	12.50
3.00	13.21
3.25	13.89
3.50	14.53
3.75	15.14
4.00	15.73
4.25	16.12
4.50	16.51
4.75	16.90
5.00	17.30

PIPE GEOMETRY DATA :

NUMBER	NAME	COORDINATES			ACT.LENGTH	SLOPE	BARRELS	X-SECTION	GEOM1	GEOM2	GEOM3
		X	Y	Z	(FT)			SHAPE	(FT)	(FT)	(FT)
11	P11	-	-	-	2000.00	0.00050	1	CIRCULAR	2.0	-	-
12	P12	-	-	-	2000.00	0.00050	1	CIRCULAR	2.0	-	-
13	P13	-	-	-	2000.00	0.00050	1	CIRCULAR	2.0	-	-
14	P14	-	-	-	2000.00	0.00050	1	CIRCULAR	2.0	-	-
15	P15	-	-	-	2000.00	0.00050	1	CIRCULAR	2.0	-	-
21	P21	-	-	-	2000.00	0.00500	1	CIRCULAR	2.0	-	-
22	P22	-	-	-	2000.00	0.00500	1	CIRCULAR	2.0	-	-
23	P23	-	-	-	2000.00	0.00500	1	CIRCULAR	2.0	-	-
24	P24	-	-	-	2000.00	0.00500	1	CIRCULAR	2.0	-	-
25	P25	-	-	-	2000.00	0.00500	1	CIRCULAR	2.0	-	-
31	P31	-	-	-	2000.00	0.05000	1	CIRCULAR	2.0	-	-
32	P32	-	-	-	2000.00	0.05000	1	CIRCULAR	2.0	-	-
33	P33	-	-	-	2000.00	0.05000	1	CIRCULAR	2.0	-	-
34	P34	-	-	-	2000.00	0.05000	1	CIRCULAR	2.0	-	-
35	P35	-	-	-	2000.00	0.05000	1	CIRCULAR	2.0	-	-
41	P41	-	-	-	2000.00	0.00050	1	CIRCULAR	12.0	-	-
42	P42	-	-	-	2000.00	0.00050	1	CIRCULAR	12.0	-	-
43	P43	-	-	-	2000.00	0.00050	1	CIRCULAR	12.0	-	-
44	P44	-	-	-	2000.00	0.00050	1	CIRCULAR	12.0	-	-
45	P45	-	-	-	2000.00	0.00050	1	CIRCULAR	12.0	-	-
51	P51	-	-	-	2000.00	0.00500	1	CIRCULAR	12.0	-	-
52	P52	-	-	-	2000.00	0.00500	1	CIRCULAR	12.0	-	-
53	P53	-	-	-	2000.00	0.00500	1	CIRCULAR	12.0	-	-
54	P54	-	-	-	2000.00	0.00500	1	CIRCULAR	12.0	-	-
55	P55	-	-	-	2000.00	0.00500	1	CIRCULAR	12.0	-	-
61	P61	-	-	-	2000.00	0.05000	1	CIRCULAR	12.0	-	-
62	P62	-	-	-	2000.00	0.05000	1	CIRCULAR	12.0	-	-
63	P63	-	-	-	2000.00	0.05000	1	CIRCULAR	12.0	-	-
64	P64	-	-	-	2000.00	0.05000	1	CIRCULAR	12.0	-	-
65	P65	-	-	-	2000.00	0.05000	1	CIRCULAR	12.0	-	-

PIPE DATA - KINEMATIC :
****

NUMBER	NAME	ROUGHNESS (FT)	ROUTING SCHEME	NITER	EPSIL	MANHOLE AREA (SF)	MANHOLE HEIGHT (FT)
11	P11	0.0100	F.DIFF KINEMATIC	2	0.00010	12.6	11.0
12	P12	0.0100	F.DIFF KINEMATIC	2	0.00010	-	-
13	P13	0.0100	F.DIFF KINEMATIC	2	0.00010	-	-
14	P14	0.0100	F.DIFF KINEMATIC	2	0.00010	-	-
15	P15	0.0100	F.DIFF KINEMATIC	2	0.00010	-	-
21	P21	0.0100	F.DIFF KINEMATIC	2	0.00010	12.6	11.0
22	P22	0.0100	F.DIFF KINEMATIC	2	0.00010	-	-
23	P23	0.0100	F.DIFF KINEMATIC	2	0.00010	-	-
24	P24	0.0100	F.DIFF KINEMATIC	2	0.00010	-	-
25	P25	0.0100	F.DIFF KINEMATIC	2	0.00010	-	-
31	P31	0.0100	F.DIFF KINEMATIC	2	0.00010	12.6	11.0
32	P32	0.0100	F.DIFF KINEMATIC	2	0.00010	-	-
33	P33	0.0100	F.DIFF KINEMATIC	2	0.00010	-	-
34	P34	0.0100	F.DIFF KINEMATIC	2	0.00010	-	-
35	P35	0.0100	F.DIFF KINEMATIC	2	0.00010	-	-
41	P41	0.0100	F.DIFF KINEMATIC	2	0.00010	452.4	26.0
42	P42	0.0100	F.DIFF KINEMATIC	2	0.00010	-	-
43	P43	0.0100	F.DIFF KINEMATIC	2	0.00010	-	-
44	P44	0.0100	F.DIFF KINEMATIC	2	0.00010	-	-
45	P45	0.0100	F.DIFF KINEMATIC	2	0.00010	-	-
51	P51	0.0100	F.DIFF KINEMATIC	2	0.00010	452.4	26.0
52	P52	0.0100	F.DIFF KINEMATIC	2	0.00010	-	-
53	P53	0.0100	F.DIFF KINEMATIC	2	0.00010	-	-
54	P54	0.0100	F.DIFF KINEMATIC	2	0.00010	-	-
55	P55	0.0100	F.DIFF KINEMATIC	2	0.00010	-	-
61	P61	0.0100	F.DIFF KINEMATIC	2	0.00010	452.4	26.0
62	P62	0.0100	F.DIFF KINEMATIC	2	0.00010	-	-
63	P63	0.0100	F.DIFF KINEMATIC	2	0.00010	-	-
64	P64	0.0100	F.DIFF KINEMATIC	2	0.00010	-	-
65	P65	0.0100	F.DIFF KINEMATIC	2	0.00010	-	-

PIPE DATA - INFLOWS 3

PIPE #	NAME	UPSTREAM INFLOW					INFLOW SCALING		BASE FLOW	RATING CURVE
		SEGMENT	ELEMENT	NUMBER	FILE	TIME	TIME	INTENS.	(CFS)	USED
11	P11	-	-	-	-	-	-	-	-	NO
12	P12	-	-	-	-	-	-	-	-	NO
13	P13	-	-	-	-	-	-	-	-	NO
14	P14	-	-	-	-	-	-	-	-	NO
15	P15	-	-	-	-	-	-	-	-	NO
21	P21	-	-	-	-	-	-	-	-	NO
22	P22	-	-	-	-	-	-	-	-	NO
23	P23	-	-	-	-	-	-	-	-	NO
24	P24	-	-	-	-	-	-	-	-	NO
25	P25	-	-	-	-	-	-	-	-	NO
31	P31	-	-	-	-	-	-	-	-	NO
32	P32	-	-	-	-	-	-	-	-	NO
33	P33	-	-	-	-	-	-	-	-	NO
34	P34	-	-	-	-	-	-	-	-	NO
35	P35	-	-	-	-	-	-	-	-	NO
41	P41	-	-	-	-	-	-	-	-	NO
42	P42	-	-	-	-	-	-	-	-	NO
43	P43	-	-	-	-	-	-	-	-	NO
44	P44	-	-	-	-	-	-	-	-	NO
45	P45	-	-	-	-	-	-	-	-	NO
51	P51	-	-	-	-	-	-	-	-	NO
52	P52	-	-	-	-	-	-	-	-	NO
53	P53	-	-	-	-	-	-	-	-	NO
54	P54	-	-	-	-	-	-	-	-	NO
55	P55	-	-	-	-	-	-	-	-	NO
61	P61	-	-	-	-	-	-	-	-	NO
62	P62	-	-	-	-	-	-	-	-	NO
63	P63	-	-	-	-	-	-	-	-	NO
64	P64	-	-	-	-	-	-	-	-	NO
65	P65	-	-	-	-	-	-	-	-	NO

HYDROGRAPHS REQUESTED AT :

	NUMBER	NAME	FLOW	PRINT	PLOT	STORE	FLAG	STAGE	VELOCITY	Q-H RELATION	EROSION
STREAMS:											
	900	END	OUTFLOW	X			NO			KINEMATIC	
	110	SPLIT10	OUTFLOW	X		FILE7	NO			KINEMATIC	
	220	SPLIT2	OUTFLOW	X		FILE7	NO			KINEMATIC	
	120	SPLIT20	OUTFLOW	X		FILE7	NO			KINEMATIC	
	230	SPLIT3	OUTFLOW	X		FILE7	NO			KINEMATIC	
	130	SPLIT30	OUTFLOW	X		FILE7	NO			KINEMATIC	
	140	SPLIT40	OUTFLOW	X		FILE7	NO			KINEMATIC	
	250	SPLIT5	OUTFLOW	X		FILE7	NO			KINEMATIC	
	150	SPLIT50	OUTFLOW	X		FILE7	NO			KINEMATIC	
	260	SPLIT6	OUTFLOW	X		FILE7	NO			KINEMATIC	
	160	SPLIT60	OUTFLOW	X		FILE7	NO			KINEMATIC	
RESERVOIRS:											
	1	RESV1	UPSTREAM	X							
	1	RESV1	OUTFLOW	X		FILE7	NO			N.A.-RESV.	
	10	RESV10	OUTFLOW			FILE7	NO			N.A.-RESV.	
	2	RESV2	UPSTREAM	X							
	2	RESV2	OUTFLOW	X		FILE7	NO			N.A.-RESV.	
	20	RESV20	OUTFLOW			FILE7	NO			N.A.-RESV.	
	3	RESV3	UPSTREAM	X							
	3	RESV3	OUTFLOW	X		FILE7	NO			N.A.-RESV.	
	30	RESV30	OUTFLOW			FILE7	NO			N.A.-RESV.	
	4	RESV4	UPSTREAM	X							
	4	RESV4	OUTFLOW	X		FILE7	NO			N.A.-RESV.	
	40	RESV40	OUTFLOW			FILE7	NO			N.A.-RESV.	
	5	RESV5	UPSTREAM	X							
	5	RESV5	OUTFLOW	X		FILE7	NO			N.A.-RESV.	

50	RESV50	OUTFLOW		FILE7	NO	N.A.-RESV.
5	RESV	UPSTREAM	X			
5	RESV	OUTFLOW	X	FILE7	NO	N.A.-RESV.
50	RESV50	OUTFLOW		FILE7	NO	N.A.-RESV.

RIVERS:

15	R15	OUTFLOW	FILE7	NO	KINEMATIC
25	R25	OUTFLOW	FILE7	NO	KINEMATIC
35	R35	OUTFLOW	FILE7	NO	KINEMATIC
45	R45	OUTFLOW	FILE7	NO	KINEMATIC
55	R55	OUTFLOW	FILE7	NO	KINEMATIC
65	R65	OUTFLOW	FILE7	NO	KINEMATIC

INFLOW APPLICATION PATTERNS :
==========

RAINFALL (LATERAL INFLOW) PATTERNS :

NOW LOADED !!

UPSTREAM INFLOW PATTERNS :

UPSTREAM INFLOW TYPE : 1 :

TIME (MINS.)	INFLOW RATE (CUSECS)		EVENT NO.
0.0	0.59	•	
5.00	0.59	•	
10.00	0.59	•	
15.00	0.59	•	
20.00	0.59	•	
25.00	0.59	•	
30.00	0.59	•	
35.00	1.04	•	
40.00	1.48	•	
45.00	1.93	•	
50.00	2.37	•	
55.00	2.82	•	
60.00	3.26	•	
65.00	3.71	•	
70.00	4.15	•	EVENT 1
75.00	4.60	•	
80.00	5.04	•	
85.00	5.49	•	
90.00	5.94	•	
95.00	5.49	•	
100.00	5.04	•	
105.00	4.60	•	
110.00	4.15	•	
115.00	3.71	•	
120.00	3.26	•	
125.00	2.82	•	
130.00	2.37	•	
135.00	1.93	•	
140.00	1.48	•	
145.00	1.04	•	
150.00	0.59	•	

SUMMARY :
PATTERN : 'NOT SPECIFIED'
NO.OF POINTS : 31
NO.INDEP.EVENTS : 1

UPSTREAM INFLOW TYPE : 2 :

TIME (MINS.)	INFLOW RATE (CUSECS)		EVENT NO.
0.0	1.88	•	
5.00	1.88	•	
10.00	1.88	•	
15.00	1.88	•	
20.00	1.88	•	
25.00	1.88	•	
30.00	1.88	•	
35.00	3.28	•	
40.00	4.69	•	
45.00	6.10	•	
50.00	7.51	•	
55.00	8.92	•	
60.00	10.32	•	
65.00	11.73	•	
70.00	13.14	•	EVENT 1
75.00	14.55	•	
80.00	15.95	•	
85.00	17.36	•	
90.00	18.77	•	
95.00	17.36	•	
100.00	15.95	•	
105.00	14.55	•	
110.00	13.14	•	
115.00	11.73	•	
120.00	10.32	•	
125.00	8.92	•	
130.00	7.51	•	
135.00	6.10	•	
140.00	4.69	•	
145.00	3.28	•	
150.00	1.88	•	

SUMMARY :
PATTERN : 'NOT SPECIFIED'
NO.OF POINTS : 31
NO.INDEP.EVENTS : 1

UPSTREAM INFLOW TYPE : 3 :

TIME (MINS.)	INFLOW RATE (CUSECS)		EVENT NO.
0.0	5.93	•	
5.00	5.93	•	
10.00	5.93	•	

15.00	5.93	*
20.00	5.93	*
25.00	5.93	*
30.00	5.93	*
35.00	10.39	*
40.00	14.84	*
45.00	19.29	*
50.00	23.74	*
55.00	28.19	*
60.00	32.64	*
65.00	37.09	*
70.00	41.55	* EVENT 1
75.00	46.00	*
80.00	50.45	*
85.00	54.90	*
90.00	55.35	*
95.00	54.90	*
100.00	50.45	*
105.00	46.00	*
110.00	41.55	*
115.00	37.09	*
120.00	32.64	*
125.00	28.19	*
130.00	23.74	*
135.00	19.29	*
140.00	14.84	*
145.00	10.39	*
150.00	5.93	*

SUMMARY 1

PATTERN	:	'NOT SPECIFIED'
NO.OF POINTS	:	31
NO.INDEP.EVENTS	:	1

INFLOW TYPE : 6 :

TIME (MINS.)	INFLOW RATE (CUSECS)		
0.0	70.54	*	
5.00	70.54	*	
10.00	70.54	*	
15.00	70.54	*	
20.00	70.54	*	
25.00	70.54	*	
30.00	70.54	*	
35.00	123.45	*	
40.00	176.35	*	
45.00	229.26	*	
50.00	282.16	*	
55.00	335.07	*	
60.00	387.98	*	
65.00	440.88	*	
70.00	493.71	*	EVENT 1
75.00	546.69	*	
80.00	599.60	*	
85.00	652.50	*	
90.00	705.41	*	

95.00	652.50	*
100.00	599.60	*
105.00	546.69	*
110.00	493.79	*
115.00	440.88	*
120.00	387.98	*
125.00	335.07	*
130.00	282.16	*
135.00	229.26	*
140.00	176.35	*
145.00	123.45	*
150.00	70.54	*

SUMMARY :

PATTERN	:	'NOT SPECIFIED'
NO.OF POINTS	:	31
NO.INDEP.EVENTS	:	1

[illegible] INFLOW TYPE : 5 :

TIME (MINS.)	INFLOW RATE (CUSECS)		EVENT NO.
0.0	223.07	*	
5.00	223.07	*	
10.00	223.07	*	
15.00	223.07	*	
20.00	223.07	*	
25.00	223.07	*	
30.00	223.07	*	
35.00	390.37	*	
40.00	557.67	*	
45.00	724.98	*	
50.00	892.28	*	
55.00	1059.58	*	
60.00	1226.88	*	
65.00	1394.19	*	
70.00	1561.49	*	EVENT 1
75.00	1728.79	*	
80.00	1896.09	*	
85.00	2063.40	*	
90.00	2230.70	*	
95.00	2063.40	*	
100.00	1896.09	*	
105.00	1728.79	*	
110.00	1561.49	*	
115.00	1394.19	*	
120.00	1226.88	*	
125.00	1059.58	*	
130.00	892.28	*	
135.00	724.98	*	
140.00	557.67	*	
145.00	390.37	*	
150.00	223.07	*	

SUMMARY :

PATTERN	:	'NOT SPECIFIED'

NO.OF POINTS : 31
NO.PROP.EVENTS : 1

INFLOW INFLOW TYPE : * :

TIME (MINS.)	INFLOW RATE (CUSECS)		EVENT NO.
0.0	705.42	*	
5.00	705.42	*	
10.00	705.42	*	
15.00	705.42	*	
20.00	705.42	*	
25.00	705.42	*	
30.00	705.42	*	
35.00	1234.48	*	
40.00	1763.55	*	
45.00	2292.61	*	
50.00	2821.68	*	
55.00	3350.74	*	
60.00	3879.81	*	
65.00	4408.87	*	
70.00	4937.94	*	EVENT 1
75.00	5467.01	*	
80.00	5996.07	*	
85.00	6525.13	*	
90.00	7054.20	*	
95.00	6525.13	*	
100.00	5996.07	*	
105.00	5467.01	*	
110.00	4937.94	*	
115.00	4408.87	*	
120.00	3879.81	*	
125.00	3350.74	*	
130.00	2821.68	*	
135.00	2292.61	*	
140.00	1763.55	*	
145.00	1234.48	*	
150.00	705.42	*	

SUMMARY :
PATTERN : 'NOT SPECIFIED'
NO.OF POINTS : 31
NO.PROP.EVENTS : 1

EVAPORATION (BASIN WIDE) DATA :
==========

EVAPORATION FILE :

DATA IN INPUT FILE !!

ATMOSPHERIC DATA MEASUREMENT HEIGHT :

150.0000 CM.

EVAPORATION DATA :

TIME	RAD.ENERGY INPUT	WIND VELOCITY	AIR TEMP.	ATMOS.VAP.PRESSURE	SURFACE ATMOS.VAP.PRESS
(MINS)	(LY/MIN)	(CM/SEC)	(DEG C)	(MB)	(MB)
0.0	-	-	-	-	-

LAND USE PARAMETERS :

DEVELOPMENT LEVEL	RUNOFF COEFFICIENT	% SEWERED	% NATURAL IMPERVIOUS	% URBAN IMPERVIOUS	% IMPERVIOUS DRAINING DIRECT TO SEWER	IMPERVIOUS OVERLAND FLOW LENGTH (FT.)	PARTIALLY PERVIOUS OVERLAND FLOW LENGTH (FT.)
1	0.[illegible] OR LESS	0.0	0.0	0.0	0.0	0.0	0.0
2	0.[illegible] TO 0.45	70.0	0.0	40.0	50.0	50.0	200.0
3	0.45 TO 0.60	80.0	0.0	50.0	50.0	50.0	200.0
4	0.60 TO 0.75	90.0	0.0	75.0	50.0	50.0	200.0
5	GREATER THAN .75	100.0	0.0	80.0	50.0	50.0	200.0

OPERATIONS SUMMARY :

ELEMENT INFORMATION DISPLAYS REQUESTED :

TYPE	GEOMETRY	KINEMATIC	OPERATION	INFLOW
CATCHMENT	X	X	--	X
STREAM	X	X	--	X
RESERVOIR	X	--	X	X
PIPE	X	X	--	X

RUN DISPLAYS REQUESTED :

TITLE	ON
REAL	OFF
DIMENSIONLESS	OFF
GRID	OFF

GENERAL INFORMATION DISPLAYS REQUESTED :

ECHO PRINT PRIMARY COMMANDS	ON
SEGMENT CONNECTIVITY	ON
RAINFALL PATTERNS	ON
UPSTREAM INFLOW PATTERNS	ON
EVAPORATION DATA	ON
LANDCOVER DATA	ON
COMPRESSED FORM OF DISPLAY	ON
SEPARATE SUMMARY PAGE HEADER	OFF

OPERATION CONTROLS :

MAXIMUM SAMPLING TIME ON INFLOW HYDROGRAPHS	:	10.00 MIN.
MAXIMUM ELEMENT OPERATING TIME	:	60.00 MIN.
MINIMUM ELEMENT OPERATING TIME	:	5.00 MIN.
RAPID CONCENTRATION TIME	:	0.0 MIN.
PERCENT OF PEAK FOR ELEMENT DISCHARGE CUTOFF	:	10.00 %
TYPE OF EXTRAPOLATION REQUESTED	:	CONSTANT
EXTRAPOLATION POSITIVE CONTROL	:	ON
LENGTH OF TIME TO BE SIMULATED	:	390.0 MIN.

RUN TERMINATION :

STREAM [illegible] TO SEGMENT NO. 900

RESERVOIR 2 -- RESV2 -- UPSTREAM INFLOW

TIME (MINS)	INFLOW (CUSECS)
0.0	1.879999
5.000	1.879999
10.000	1.879999
15.000	1.879999
20.000	1.879999
25.000	1.879999
30.000	1.879999
35.000	3.280000
40.000	4.690000
45.000	6.099999
50.000	7.509999
55.000	8.919999
60.000	10.320000
65.000	11.730000
70.000	13.139999
75.000	14.549999
80.000	15.950000
85.000	17.359985
90.000	18.769989
95.000	17.359985
100.000	15.950000
105.000	14.549999
110.000	13.139999
115.000	11.730000
120.000	10.320000
125.000	8.919999
130.000	7.509999
135.000	6.099999
140.000	4.690000
145.000	3.280000
150.000	1.879999

```
*******************************************************************************
*                                                                             *
*            R E S E R V. 1     2 - - RESV2     - - OUTPUT                     *
*                                                                             *
*******************************************************************************

*******************************************************************************

DATASET WRITTEN ON FILE <FILE7    > <DISCHARG>.  HEADER BELOW.

10/17/7418.35.34DISCHARGE FROM  RESERV.-RESV2              2   3   2   3   03501
    730.0             20410010  00.0           0.6500000E 01

DATASET WRITTEN ON FILE <FILE7    > <DISCHARG>.  HEADER BELOW.

10/17/7418.35.34WATER SRF. ELV. RESERV.-RESV2              2   3   2   5   03511
    740.0             2041010  00.0            0.6500000E 01
```

```
*****************************************************************************
*                                                                           *
*                S T R E A M  220 - - SPLIT2   - - OUTPUT                   *
*                                                                           *
*****************************************************************************
```

TIME (HOUR)	DISCHARGE (CFS)	SPILL (CFS)
0.0	0.0	0.0
0.083	1.87	0.0
0.167	1.88	0.0
0.250	1.88	0.0
0.333	1.88	0.0
0.417	1.88	0.0
0.500	1.88	0.0
0.583	3.27	0.0
0.667	4.68	0.0
0.750	6.09	0.0
0.833	7.50	0.0
0.917	8.91	0.0
1.000	10.31	0.0
1.083	11.72	0.0
1.167	13.13	0.0
1.250	14.54	0.0
1.333	15.94	0.0
1.417	17.35	0.0
1.500	18.76	0.0
1.583	17.37	0.0
1.667	15.96	0.0
1.750	14.56	0.0
1.833	13.15	0.0
1.917	11.74	0.0
2.000	10.33	0.0
2.083	8.93	0.0
2.167	7.52	0.0
2.250	6.11	0.0
2.333	4.70	0.0
2.417	3.29	0.0
2.500	1.89	0.0
2.583	1.88	0.0
2.667	1.88	0.0
2.750	1.88	0.0
2.833	1.88	0.0
2.917	1.88	0.0
3.000	1.88	0.0
3.083	1.88	0.0
3.167	1.88	0.0
3.250	1.88	0.0
3.333	1.88	0.0
3.417	1.88	0.0
3.500	1.88	0.0
3.583	1.88	0.0
3.667	1.88	0.0
3.750	1.88	0.0

3.833	1.88	0.0
3.917	1.88	0.0
4.000	1.88	0.0
4.083	1.88	0.0
4.167	1.88	0.0
4.250	1.88	0.0
4.333	1.88	0.0
4.417	1.88	0.0
4.500	1.88	0.0
4.583	1.88	0.0
4.667	1.88	0.0
4.750	1.88	0.0
4.833	1.88	0.0
4.917	1.88	0.0
5.000	1.88	0.0
5.083	1.88	0.0
5.167	1.88	0.0
5.250	1.88	0.0
5.333	1.88	0.0
5.417	1.88	0.0
5.500	1.88	0.0
5.583	1.88	0.0
5.667	1.88	0.0
5.750	1.88	0.0
5.833	1.88	0.0
5.917	1.88	0.0
6.000	1.88	0.0
6.083	1.88	0.0
6.167	1.88	0.0
6.250	1.88	0.0
6.333	1.88	0.0
6.417	1.88	0.0
6.500	1.83	0.0

oooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooo

DATASET WRITTEN ON FILE <FILEZ > <DISCHARG>. HEADER BELOW.

```
10/17/7418.35.38DISCHARGE FROM STREAM - SPLIT2          220   2 220   3   03517
    760.83333331E-01 20410010  00.0            0.6499994E 01
```

DATASET WRITTEN ON FILE <FILEZ > <DISCHARG>. HEADER BELOW.

```
10/17/7418.35.38  SPILL   FROM STREAM - SPLIT2          220   2 220   7   03523
    760.83333331E-01 20410010  00.0            0.6499994E 01
```

[illegible] : 21

PIPE : 21 - P21

[illegible] : 22

PIPE : 22 - P22

[illegible] : 23

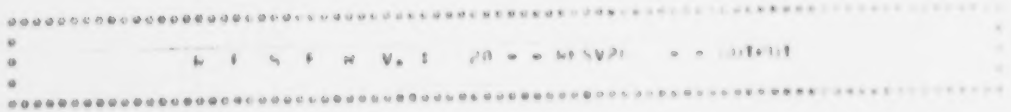
PIPE : 23 - P23

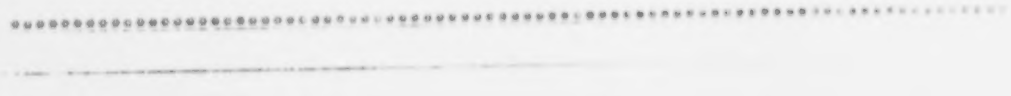
[illegible] : 24

PIPE : 24 - P24

[illegible] : 25

PIPE : 25 - P25





DATASET WRITTEN ON FILE <FILE7 > <DISCHARG>. HEADER BELOW.

1/17/741M.35.3HDISCHARGE FROM RESERV.-RESV20 20 1 20 1 03551
796.0 20410010 00.0 0.5500000E 01

DATASET WRITTEN ON FILE <FILE7 > <DISCHARG>. HEADER BELOW.

1/17/741M.35.3HWATER SRF. ELV. RESERV.-RESV20 20 1 20 5 03553
790.0 204 1010 00.0 0.4500000E 01

NODE : 120

STREAM : 120 - SPLIT20

```
*****************************************************************************
*                                                                           *
*                S T R E A M:  120 - - SPLIT20  - - OUTPUT                  *
*                                                                           *
*****************************************************************************
```

TIME (HOUR)	DISCHARGE (CFS)	SPILL (CFS)
0.0	0.0	0.0
0.083	0.0	0.0
0.167	0.0	0.0
0.250	0.0	0.0
0.333	0.0	0.0
0.417	0.0	0.0
0.500	0.0	0.0
0.583	0.35	0.0
0.667	1.10	0.0
0.750	1.60	0.0
0.833	1.92	0.0
0.917	2.24	0.0
1.000	3.56	0.0
1.083	4.19	1.23
1.167	4.64	2.59
1.250	5.06	3.86
1.333	5.45	5.01
1.417	5.80	6.07
1.500	6.15	7.12
1.583	6.49	8.16
1.667	6.81	9.11
1.750	7.05	9.85
1.833	7.20	10.30
1.917	7.13	10.08
2.000	6.85	9.22
2.083	6.48	8.11
2.167	6.11	7.00
2.250	5.75	5.93
2.333	5.41	4.89
2.417	5.06	3.84
2.500	4.74	2.89
2.583	4.44	1.99
2.667	4.16	1.14
2.750	3.90	0.35
2.833	3.31	0.0
2.917	2.50	0.0
3.000	2.11	0.0
3.083	1.96	0.0
3.167	1.90	0.0
3.250	1.89	0.0
3.333	1.88	0.0
3.417	1.88	0.0
3.500	1.88	0.0
3.583	1.88	0.0
3.667	1.88	0.0
3.750	1.88	0.0

3.833	1.AA	0.0
3.917	1.AA	0.0
4.000	1.AA	0.0
4.083	1.AA	0.0
4.167	1.AA	0.0
4.250	1.AA	0.0
4.333	1.AA	0.0
4.417	1.AA	0.0
4.500	1.AA	0.0
4.583	1.AA	0.0
4.667	1.AA	0.0
4.750	1.AA	0.0
4.833	1.AA	0.0
4.917	1.AA	0.0
5.000	1.AA	0.0
5.083	1.AA	0.0
5.167	1.AA	0.0
5.250	1.AA	0.0
5.333	1.AA	0.0
5.417	1.AA	0.0
5.500	1.AA	0.0
5.583	1.AA	0.0
5.667	1.AA	0.0
5.750	1.AA	0.0
5.833	1.AA	0.0
5.917	1.AA	0.0
6.000	1.AA	0.0
6.083	1.AA	0.0
6.167	1.AA	0.0
6.250	1.AA	0.0
6.333	1.AA	0.0
6.417	1.AA	0.0
6.500	1.AA	0.0

****

DATASET WRITTEN ON FILE <FILE7 > <DISCHARG>. HEADER BELOW.

10/17/7418.35.38 DISCHARGE FROM STREAM - SPLIT20 120 2 120 3 03554
790.8333331E-01 20410010 00.0 0.6499996E 01

DATASET WRITTEN ON FILE <FILE7 > <DISCHARG>. HEADER BELOW.

10/17/7418.35.44 SPILL FROM STREAM - SPLIT20 120 2 120 7 03565
790.8333331E-01 20410010 00.0 0.6499996E 01

```
END OF RUN FOR 10/17/74 AT 18.35.38

SYSTEM TERMINATED AT STREAM     NUMBER 900  IN NODE 900

( REQUESTED TERMINATION WAS AT STREAM     NUMBER 900  )

TOTAL RUN VOLUMES :
-------------------

INIT. SURF. VOLUME :          0.0                      AC.FT.
UPSTREAM INFLOW    :       1290.9197                   AC.FT.
LATERAL INFLOW     :          0.0                      AC.FT.
TOTAL INFLOW       :                        1290.9197  AC.FT.

ROUTED OUTFLOW     :        547.6602                   AC.FT.
VOLUME INFILTRATED :          0.0                      AC.FT.
VOLUME SPILL DUMPED:        726.9546                   AC.FT.
TOTAL OUTFLOW      :                        1274.6147  AC.FT.
REM. SURF. VOLUME  :         13.0379                   AC.FT.
VOLUME EVAPORATED  :          0.0                      AC.FT.

TOT. ACCOUNTED FOR :                        1287.6526  AC.FT.


RUN LOSSES :
------------

VOLUME LOST ...    :                           3.2671  AC.FT.
                                               0.2531  PER CENT.


     -- RUN TERMINATED ON 10/17/74 AT 18.40.10 --
     ==================================================
```

FINAL SUMMARY OF VOLUMES :

NUMBER	NAME	TIME STEP (MINS)	INFLOW VOLUMES SURFACE (AC.FT)	INFLOW VOLUMES UPSTREAM (AC.FT)	INFLOW VOLUMES LATERAL (AC.FT)	INFILTRATION VOLUME (AC.FT)	INFILTRATION PERCENT (PERCENT)	OUTFLOW VOLUMES RUNOFF (AC.FT)	OUTFLOW VOLUMES PERCENT (PERCENT)	OUTFLOW VOLUMES SURFACE (AC.FT)	OUTFLOW VOLUMES GROUNDWATER (AC.FT)
STREAMS											
100	LINK	0.0	0.0	250.60	0.0	0.0	0.0	250.40	100.00	0.0	0.0
110	SPLIT10	0.0	0.0	0.67	0.0	0.0	0.0	0.64	96.83	0.0	0.02
120	SPLIT20	0.0	0.0	2.30	0.0	0.0	0.0	1.68	66.68	0.0	0.02
130	SPLIT30	0.0	0.0	7.34	0.0	0.0	0.0	3.30	44.90	0.0	0.05
140	SPLIT40	0.0	0.0	85.82	0.0	0.0	0.0	75.69	87.68	0.0	10.34
150	SPLIT50	0.0	0.0	280.89	0.0	0.0	0.0	164.99	58.52	0.0	116.03
160	SPLIT60	0.0	0.0	658.82	0.0	0.0	0.0	296.77	45.05	0.0	362.15
220	SPLIT2	0.0	0.0	2.40	0.0	0.0	0.0	2.40	100.00	0.0	0.0
230	SPLIT3	0.0	0.0	7.59	0.0	0.0	0.0	7.45	98.28	0.0	0.14
250	SPLIT5	0.0	0.0	285.15	0.0	0.0	0.0	285.15	100.00	0.0	0.0
260	SPLIT6	0.0	0.0	901.72	0.0	0.0	0.0	663.29	73.58	0.0	238.52
900	EOC	0.0	0.0	547.66	0.0	0.0	0.0	547.66	100.00	0.0	0.0
	TOTALS :		0.0	3031.25	0.0	0.0	0.0	2304.51	76.03	0.0	
RESERVOIRS											
1	RESV1	5.00	0.0	0.76	0.0	0.0	0.0	0.76	99.76	0.00	0.0
2	RESV2	5.00	0.0	2.41	0.0	0.0	0.0	2.40	99.76	0.00	0.0
3	RESV3	5.00	0.0	7.60	0.0	0.0	0.0	7.58	99.76	0.00	0.0
4	RESV4	5.00	0.0	90.39	0.0	0.0	0.0	90.17	99.76	0.01	0.0
5	RESV5	5.00	0.0	285.84	0.0	0.0	0.0	285.15	99.76	0.02	0.0
6	RESV6	5.00	0.0	903.92	0.0	0.0	0.0	901.72	99.76	0.06	0.0
10	RESV10	5.00	0.0	0.67	0.0	0.0	0.0	0.67	99.33	0.00	0.0
20	RESV20	5.00	0.0	2.30	0.0	0.0	0.0	2.30	99.36	0.00	0.0
30	RESV30	5.00	0.0	7.34	0.0	0.0	0.0	7.34	99.09	0.00	0.0
40	RESV40	5.00	0.0	86.73	0.0	0.0	0.0	85.82	98.96	0.90	0.0
50	RESV50	5.00	0.0	281.22	0.0	0.0	0.0	280.89	99.88	0.33	0.0
60	RESV60	5.00	0.0	658.93	0.0	0.0	0.0	658.82	99.98	0.11	0.0
	TOTALS :		0.0	2328.11	0.0	0.0	0.0	2323.63	99.81	1.43	
PIPES											
11	P11	5.00	0.0	0.76	0.0	0.0	0.0	0.74	98.13	0.02	0.0
12	P12	5.00	0.0	0.74	0.0	0.0	0.0	0.72	97.57	0.02	0.0
13	P13	5.00	0.0	0.72	0.0	0.0	0.0	0.71	97.60	0.02	0.0
14	P14	5.00	0.0	0.71	0.0	0.0	0.0	0.69	97.31	0.02	0.0
15	P15	5.00	0.0	0.69	0.0	0.0	0.0	0.67	97.52	0.02	0.0
21	P21	5.00	0.0	2.40	0.0	0.0	0.0	2.38	99.17	0.02	0.0
22	P22	5.00	0.0	2.38	0.0	0.0	0.0	2.36	99.21	0.02	0.0
23	P23	5.00	0.0	2.36	0.0	0.0	0.0	2.34	99.20	0.02	0.0
24	P24	5.00	0.0	2.34	0.0	0.0	0.0	2.32	99.17	0.02	0.0
25	P25	5.00	0.0	2.32	0.0	0.0	0.0	2.30	99.16	0.02	0.0
31	P31	5.00	0.0	7.45	0.0	0.0	0.0	7.43	99.85	0.02	0.0
32	P32	5.00	0.0	7.43	0.0	0.0	0.0	7.41	99.72	0.02	0.0
33	P33	5.00	0.0	7.41	0.0	0.0	0.0	7.39	99.72	0.02	0.0

NUMBER	ID	TIME STEP	INFLOW VOLUMES			INFILTRATION		OUTFLOW VOLUMES			
			SURFACE	UPSTREAM	LATERAL	VOLUME	PERCENT	RUNOFF	STORAGE	SURFACE	OUTLET
		(MINS)	(AC.FT)	(AC.FT)	(AC.FT)	(AC.FT)	(PERCENT)	(AC.FT)	(AC.FT)	(AC.FT)	(AC.FT)
34	P34	5.00	0.0	7.39	0.0	0.0	0.0	7.39	99.99	0.00	0.0
35	P35	5.00	0.0	7.35	0.0	0.0	0.0	7.35	99.99	0.00	0.0
41	P41	5.00	0.0	40.17	0.0	0.0	0.0	40.17	99.99	0.00	0.0
42	P42	5.00	0.0	39.45	0.0	0.0	0.0	39.45	99.99	0.00	0.0
43	P43	5.00	0.0	40.77	0.0	0.0	0.0	40.77	99.99	0.00	0.0
44	P44	5.00	0.0	88.09	0.0	0.0	0.0	87.41	99.99	0.00	0.0
45	P45	5.00	0.0	87.41	0.0	0.0	0.0	86.73	99.99	0.00	0.0
51	P51	5.00	0.0	285.15	0.0	0.0	0.0	284.22	99.97	0.00	0.0
52	P52	5.00	0.0	284.22	0.0	0.0	0.0	283.46	99.73	0.00	0.0
53	P53	5.00	0.0	283.46	0.0	0.0	0.0	282.72	99.74	0.00	0.0
54	P54	5.00	0.0	282.72	0.0	0.0	0.0	281.96	99.73	0.00	0.0
55	P55	5.00	0.0	281.96	0.0	0.0	0.0	281.22	99.74	0.00	0.0
61	P61	5.00	0.0	663.29	0.0	0.0	0.0	662.32	99.85	0.00	0.0
62	P62	5.00	0.0	662.32	0.0	0.0	0.0	661.39	99.86	0.00	0.0
63	P63	5.00	0.0	661.39	0.0	0.0	0.0	660.52	99.87	0.00	0.0
64	P64	5.00	0.0	660.52	0.0	0.0	0.0	659.69	99.87	0.00	0.0
65	P65	5.00	0.0	659.69	0.0	0.0	0.0	658.91	99.88	0.00	0.0
	TOTALS :		0.0	5221.05	0.0	0.0	0.0	5209.82	99.77	11.23	

STATIONS:

NUMBER	NAME	MAXIMUM VALUES				TIME TO PEAK	FLAG/CHECK VALUES							
		OUTFLOW (CFS)	STAGE (FT)	VEL. (FPS)	INFLOW (CMS/SQ.KM)	(MINS)	OUTFLOW (CFS)	T.P. (MINS)	DERIV (CFS)	T.P. (MINS)	VELOCITY (FPS)	T.P. (MINS)	INFLOW (CMS/SQ.KM)	T.P. (MINS)
100	LINK	1143.90	N.A.	N.A.	N.A.	105.00	N.A.	--	N.A.	--	N.A.	--	N.A.	--
110	SPLIT10	3.97	N.A.	N.A.	N.A.	155.00	N.A.	--	N.A.	--	N.A.	--	N.A.	--
120	SPLIT20	7.20	N.A.	N.A.	N.A.	110.00	N.A.	--	N.A.	--	N.A.	--	N.A.	--
130	SPLIT30	15.44	N.A.	N.A.	N.A.	90.00	N.A.	--	N.A.	--	N.A.	--	N.A.	--
140	SPLIT40	390.00	N.A.	N.A.	N.A.	115.00	N.A.	--	N.A.	--	N.A.	--	N.A.	--
150	SPLIT50	746.42	N.A.	N.A.	N.A.	100.00	N.A.	--	N.A.	--	N.A.	--	N.A.	--
160	SPLIT60	445.14	N.A.	N.A.	N.A.	70.00	N.A.	--	N.A.	--	N.A.	--	N.A.	--
220	SPLIT2	18.75	N.A.	N.A.	N.A.	90.00	N.A.	--	N.A.	--	N.A.	--	N.A.	--
230	SPLIT3	50.17	N.A.	N.A.	N.A.	80.00	N.A.	--	N.A.	--	N.A.	--	N.A.	--
250	SPLIT5	2227.14	N.A.	N.A.	N.A.	90.00	N.A.	--	N.A.	--	N.A.	--	N.A.	--
260	SPLIT6	2776.73	N.A.	N.A.	N.A.	55.00	N.A.	--	N.A.	--	N.A.	--	N.A.	--
300	END	2083.92	N.A.	N.A.	N.A.	105.00	N.A.	--	N.A.	--	N.A.	--	N.A.	--

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NOTE:

T.P. = TIME IN EXCESS
N.A. = NOT APPLICABLE
(W) = WET CHANNEL LIMIT
(O) = OVERBANK LIMIT

RESERVOIRS:

NUMBER	PLAN	MAXIMUM VALUES				TIME TO PEAK	DISPOSAL VALUES			
		OUTFLOW (CFS)	STAGE (FT)	VOLUME (AC.FT)	SPILL/HEAD (FT)	(MINS)	OUTFLOW (CFS)	T.F. (MINS)	HEAD (FT)	T.F. (MINS)
1	RESV1	5.54	0.71	0.00	-10.29	90.00	N.A.	--	N.A.	--
2	RESV2	12.76	2.56	0.00	-8.44	90.00	N.A.	--	N.A.	--
3	RESV3	59.35	11.00	0.00	0.00	90.00	N.A.	--	N.A.	--
4	RESV4	704.71	5.85	0.06	-20.15	90.00	N.A.	--	N.A.	--
5	RESV5	2227.14	22.74	0.26	-3.26	90.00	N.A.	--	N.A.	--
6	RESV6	7154.17	26.12	0.27	0.12	90.00	N.A.	--	N.A.	--
10	RESV10	4.53	1.13	0.03	-48.87	155.00	N.A.	--	N.A.	--
20	RESV20	17.30	5.13	0.02	-44.87	110.00	N.A.	--	N.A.	--
30	RESV30	50.52	25.76	0.02	-24.24	90.00	N.A.	--	N.A.	--
40	RESV40	560.13	8.75	9.11	-41.25	115.00	N.A.	--	N.A.	--
50	RESV50	1980.25	51.40	10.74	-48.60	100.00	N.A.	--	N.A.	--
60	RESV60	2786.04	87.64	2.26	-12.36	70.00	N.A.	--	N.A.	--

NOTE:

T.F. = TIME IN EXCESS
N.A. = NOT APPLICABLE

***** WARNING ***** NO FINAL SUMMARY TABLE AVAILABLE FOR PIPES...SORRY

SOGREAH LOOPED SEWER MODEL

INPUT DATA LISTING FOR HYPOTHETICAL CATCHMENT SIMULATION

(NOT FURNISHED)

SOGREAH LOOPED SEWER MODEL

SELECTED OUTPUT OF HYPOTHETICAL CATCHMENT SIMULATION

SOGREAH LOOPED SEWER MODEL

INPUT DATA LISTING FOR HYPOTHETICAL PIPE SIMULATION

SoG

Doc. n° 1

```
* BATTELLE  TESTS *      SEWERAGE NETWORK FLOW ROUTING PROGRAM
BATTELLE TESTS 1      ANGLAIS
   10     9      5 5000
    .     1      1
 305.            100.
111A.JUNC 3     3060.      1.524      -5.5        .6096
                2438.4
                3020.
111K            3048.     .000001
112A.JUNC 7     3060.      1.524      -5.5        .6096
       11
   2
   1.8288     1.165     200.       1.165
       9
   5.1826       4.
       8
       3                              1.524      .4720
                2438.4
                3020.
112K            3048.
         8      3048.     .000001
   1     2        .6      0.050       .3048
121A.JUNC 3     3060.      15.24      -5.5        .6096
                2438.4
                3020.
121K            3048.     .000001
122A.JUNC 7     3060.      15.24      -5.5        .6096
       11
   2
  15.5448     1.165     200.       1.165
       9
  18.8986       4.
       8
       3                              15.24      .4720
                2438.4
                3020.
122K            3048.
         8      3048.     .000001
   1     2        .6      0.050       .3048
131A.JUNC 3     3060.      152.4      -5.5        .6096
                2438.4
                3020.
131K            3048.     .000001
132A.JUNC 7     3060.      152.4      -5.5        .6096
       11
   2
 152.7068     1.165     200.       1.165
       9
 156.0596       4.
       8
       3                             152.4       .4720
                2438.4
                3020.
132K            3048.
         8      3048.     .000001
   1     2        .6      0.050       .3048
211A.JUNC 3     3060.      1.524      -8.5       3.6576
                2438.4
                3020.
211K            3048.     .000001
212A.JUNC 7     3060.      1.524      -8.5       3.6576
       11
```

- the pipe number is not given (optional)
- pipe 111A - 111K - JUNC
- pipe 112A - 112K - JUNC
- pipe 121A - 121K - JUNC
- retention basin code number
- number of levels defining the basin table
- table S(m2) (y)
- sideflow weir code number
- crest elevation and width of the sideflow weir
- orifice code number
- invert elevation and diameter of the orifice
- orifice code number
- Borda code for the orifice

```
   3.3528     42.       200.       42.
         9
  11.2776     25.
         8
         3                          1.524     2.835
             2438.4
             3020.
212K         3048.
         8   3048.     .000001
    1    2     .6      0.250      1.8288
221A.JUNC 3  3060.      15.24      -8.5       3.6576
             2438.4
             3020.
221K         3048.     .000001
222A.JUNC 7  3060.      15.24      -8.5       3.6576
        11
    2
  17.0688     42.       200.       42.
         9
  24.9936     25.
         8
         3                          15.24     2.835
             2438.4
             3020.
222K         3048.
         8   3048.     .000001
    1    2     .6      0.250      1.8288
231A.JUNC 3  3060.     152.4       -8.5       3.6576
             2438.4
             3020.
231K         3048.     .000001
232A.JUNC 7  3060.     152.4       -8.5       3.6576
        11
    2
 154.2288     42.       200.       42.
         9
 162.1536     25.
         8
         3                         152.4      2.835
             2438.4
             3020.
232K         3048.
         8   3048.     .000001
    1    2     .6      0.250      1.8288
112K.JUNC 1    10.     .000001      -5.5       .6096
         8
    1          .6                 .000001     .3048
212K.JUNC 1    10.     .000001      -8.5      3.6576
         8
    1          .6                 .000001    1.8288
122K.JUNC 1    10.     .000001      -5.5       .6096
         8
    1          .6                 .000001     .3048
222K.JUNC 1    10.     .000001      -8.5      3.6576
         8
    1          .6                 .000001    1.8288
132K.JUNC 1    10.     .000001      -5.5       .6096
         8
    1          .6                 .000001     .3048
232K.JUNC 1    10.     .000001      -8.5      3.6576
         8
    1          .6                 .000001    1.8288
JUNCDOWN 1              -8.5       -8.5       3.6576
DOWN     1
```

blank card indicating termination of [illegible]

SOG

Doc #27

```
* BATTELLE  TESTS *     SEWERAGE NETWORK FLOW ROUTING PROGRAM
BATTELLE TESTS 1    ANGLAIS
   10    0    5   13   12         14       3000
   13    4INFLOW SHAPE #3
   10.        11.        12.        24.
1114
   .01682      .1682     .01682     .01682
1124
   .01682      .1682     .01682     .01682
1214
   .05314      .5314     .05314     .05314
1224
   .05314      .5314     .05314     .05314
1314
   .1680      1.680      .1680      .1680
1324
   .1680      1.680      .1680      .1680
2114
  1.9975     19.975     1.9975     1.9975
2124
  1.9975     19.975     1.9975     1.9975
2214
  6.3167     63.167     6.3167     6.3167
2224
  6.3167     63.167     6.3167     6.3167
2314
 19.975     199.75     19.975     19.975
2324
 19.975     199.75     19.975     19.975
DOWN:
    -5.        -5.        -5.        -5.        -5.        -5.        -5.        -5.
    3    5    1
   10.        16.         5.                                1.
   10.96       1.        11.         .5        11.45       1.        13.        2.5
   14.         5.
    1.669     0.017      1.495     0.017      1.343     0.017      1.191     0.017
    1.039     0.017      0.886     0.017      0.733     0.017      0.581     0.017
    0.428     0.017      0.428     0.017      0.277     0.017      0.097     0.017
    0.097     0.017      0.025     0.017      0.025     0.017     -5.000     0.017
   15.364     0.053     13.840     0.053     12.316     0.053     10.792     0.053
    9.268     0.053      7.744     0.053      6.220     0.053      4.696     0.053
    3.172     0.053      3.172     0.053      1.717     0.053      0.252     0.053
    0.252     0.053      0.063     0.053      0.063     0.053     -5.000     0.053
  152.524     0.168    137.296     0.168    122.044     0.168    106.804     0.168
   91.564     0.168     76.324     0.168     61.084     0.168     45.844     0.168
   30.604     0.168     30.604     0.168     16.064     0.168      1.523     0.168
    1.523     0.168      0.076     0.168      0.076     0.168     -5.000     0.168
    2.266     1.997      2.113     1.997      1.960     1.997      1.806     1.997
    1.651     1.997      1.496     1.997      1.332     1.997      1.162     1.997
    0.976     1.997      0.976     1.997      0.752     1.997      0.387     1.997
    0.387     1.997      0.168     1.997      0.168     1.997     -5.000     1.997
   15.982     6.317     14.458     6.317     12.934     6.317     11.410     6.317
    9.886     6.317      8.362     6.317      6.838     6.317      5.314     6.317
    3.788     6.317      3.788     6.317      2.317     6.317      0.499     6.317
    0.499     6.317      0.256     6.317      0.256     6.317     -5.000     6.317
  153.142    19.975    137.902    19.975    122.662    19.975    107.422    19.975
   92.182    19.975     76.942    19.975     61.702    19.975     46.462    19.975
   31.222    19.975     31.222    19.975     16.682    19.975      2.110    19.975
    2.110    19.975      0.635    19.975      0.635    19.975     -5.000    19.975
   -5.000    57.954     -5.000    57.954     -5.000     0.250      0.053     0.250
```

15.982	6.317	14.458	6.317	12.934	6.317	11.410	6.317
9.886	6.317	8.362	6.317	6.838	6.317	5.316	6.317
3.807	6.317	3.807	6.317	2.678	6.317	1.755	6.317
1.755	6.317	1.744	6.317	1.744	6.317	0.243	6.317
-5.000	6.317	-5.000	0.050	0.041	0.050	0.234	-0.000
15.364	0.053	15.366	0.053	15.366	0.053	13.364	0.053
13.860	0.053	12.314	0.053	10.742	0.053	9.264	0.053
7.744	0.053	6.220	0.053	4.696	0.053	3.172	0.053
3.172	0.053	1.718	0.053	0.246	0.053	0.246	0.053
0.239	0.053	0.239	0.053	0.041	0.053	-5.000	0.053
-5.000	9.836	9.311	9.836	3.128	9.586	153.365	19.975
153.365	19.975	153.365	19.975	153.142	19.975	137.902	19.975
122.662	19.975	107.422	19.975	92.182	19.975	76.942	19.975
61.702	19.975	45.462	19.975	31.223	19.975	31.223	19.975
16.696	19.975	3.174	19.975	3.174	19.975	3.124	19.975
3.128	10.388	0.304	10.388	-5.000	10.388	-5.000	1.997
0.142	1.997	0.485	1.997	2.269	1.997	2.269	1.997
2.269	1.997	2.267	1.997	2.115	1.997	1.963	1.997
1.812	1.997	1.662	1.997	1.513	1.997	1.368	1.997
1.223	1.997	1.098	1.997	1.098	1.997	0.986	1.997
0.892	1.997	0.892	1.997	0.485	1.997	0.885	-0.000
0.053	0.250	-5.000	0.250	-5.000	0.050	0.041	0.050
0.124	0.000	1.648	0.017	1.648	0.017	1.648	0.017
1.648	0.017	1.495	0.017	1.343	0.017	1.191	0.017
1.038	0.017	0.886	0.017	0.733	0.017	0.581	0.017
0.429	0.017	0.429	0.017	0.283	0.017	0.139	0.017
0.139	0.017	0.124	0.017	0.124	0.017	0.024	0.017
-5.000	0.017	-5.000	0.106	0.057	0.106	0.450	0.106
152.544	0.168	152.544	0.168	152.544	0.168	152.524	0.168
137.284	0.168	122.044	0.168	106.804	0.168	91.564	0.168
76.324	0.168	61.084	0.168	45.864	0.168	30.604	0.168
30.604	0.168	16.064	0.168	1.532	0.168	1.532	0.168
0.450	0.168	0.450	0.062	0.041	0.112	-5.000	0.112

50G

Doc. [illegible]

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• BATTELLE  TESTS •      SEWERAGE NETWORK      CONCENTRATION ROUTING PROGRAM
 5000       ANGLAIS
   12   14   13    2    6    3   18.      100.
```

[illegible] reference number

7 = number of markers (one for each of the three consecutive inflow concentration shapes

[illegible] TESTS = T I M E = 11 H 0 MN 0 S. (39600. S.), TIME STEP = [illegible] S. , CYCLE 16

PIPE NO.		POINT A	B	C	D	E	F	G	K	J
111	Y	1.9514			1.5959	1.2394	0.8776	0.5063	0.0317	
	Q	0.1682			0.1407	0.1119	0.0810	0.0493	0.0283	
112	Y	1.9541	1.9541	1.9512	1.5958	1.2393	0.8777	0.5099	0.1540	0.1540
	Q	0.1682	0.1681	0.1681	0.1406	0.1119	0.0809	0.0491	-0.0000	0.0245
121	Y	15.6922			12.6235	9.5564	6.4904	3.4243	0.1105	
	Q	0.5314			0.5013	0.4719	0.4431	0.4142	0.3889	
122	Y	15.7239	15.7239	15.6921	12.6234	9.5563	6.4903	3.4261	0.7555	0.7555
	Q	0.5314	0.5313	0.5313	0.5011	0.4718	0.4430	0.4137	0.2222	0.1510
131	Y	152.6531			122.3662	91.8795	61.3930	30.9066	0.2202	
	Q	1.6800			1.6492	1.6188	1.5886	1.5587	1.5305	
132	Y	153.1728	153.1728	152.8530	122.3661	91.8794	61.3929	30.9072	5.7974	5.7974
	Q	1.6800	1.6796	1.6796	1.6488	1.6184	1.5883	1.5583	0.9182	0.4729
211	Y	3.9769			3.5675	3.1337	2.6521	2.0462	0.3976	
	Q	19.9750			19.1363	18.3307	17.5817	16.9341	16.5190	
212	Y	4.1201	4.1200	4.0885	3.7391	3.4150	3.1236	2.8696	2.6554	2.6554
	Q	19.9750	19.9515	19.9515	18.8223	17.6521	16.4730	15.3301	5.0495	9.2135
221	Y	17.9509			14.8647	11.7782	8.6807	5.4948	0.7223	
	Q	63.1670			62.0787	61.0025	59.9512	58.9806	58.3114	
222	Y	18.2964	18.2962	17.9532	15.0191	13.6506	11.8801	10.0652	8.2519	8.2519
	Q	63.1670	63.1303	63.1303	61.0381	52.3815	52.3608	52.3448	33.4003	18.9328
231	Y	155.1201			124.6277	94.1347	63.6425	33.1488	1.3016	
	Q	199.7500			198.6359	197.5359	196.4316	195.3329	194.3739	
232	Y	158.5616	158.5612	155.1132	124.6091	104.5006	89.1893	73.1252	57.0713	57.0713
	Q	199.7500	199.5980	199.5980	198.6480	159.8338	159.6891	159.6124	106.9066	52.6403

SOGREAH LOOPED SEWER MODEL

Selected Output of Hypothetical Pipe Simulation

SOG
Doc. n° 2

30 JULY 1974

S O G R E A H

SERVICE SCIENTIFIQUE D'APPLICATION

* BATTELLE TESTS * SEWERAGE NETWORK FLOW ROUTING PROGRAM

CALCUL DES RESEAUX D'ASSAINISSEMENT - PROGRAMME 'CAREDAS - MODELE'

- GENERAL DATA -

- COMPUTER CODE..... 5.00 31044/10 5 [illegible]
- MODEL REFERENCE..... BATTELLE TESTS 1
- NUMBER OF PIPES..... (optional)
- NUMBER OF NODE GROUPS..... 1
- NUMBER OF CROSS-SECTION TYPES (DIVIDED INTO 102 INTERVALS)..... 1
- NUMBER OF PIPES TO BE PRINTED..... (optional)
- MODEL DATA SET PRINTING OPTION..... 0 (the added model [illegible])
- MAXIMUM DISTANCE BETWEEN TWO COMPUTATION POINTS..... 305.0 M
- STANDARD STRICKLER VALUE..... 100.0
- COMMENTS :

- NETWORK DESCRIPTION -

PIPE PARAMETERS

NO	NAME UP.-DOWN.	LENGTH	INVERT ELEVATION UP.	INVERT ELEVATION DOWN.	TYPE NO	DIM.	STRICK	GROUND ELEVATION UP.	GROUND ELEVATION DOWN.
1	111A JUNC	3060.00	1.52	-5.50	0	0.61	100.00	0.0	0.0
2	112A JUNC	3060.00	1.52	-5.50	0	0.61	100.00	0.0	0.0
		1.829	1.165	200.000		1.165			
3	121A JUNC	3060.00	15.24	-5.50	0	0.61	100.00	0.0	0.0

(RECTANGULAR WEIR - CREST ELEVATION 5.18 M , WIDTH 4.00 M , DISCHARGE COEFFICIENT 1.000 , LEAKAGE DISCHARGE 0.0 M3/S)

(DATA : 0 3 1.000 0.0 1.524 0.472 0.0)

(DATA : 1 2 0.600 0.050 0.305 0.0 0.0)

SPECIAL POINTS

NO	UPSTREAM DISTANCE	TYPE	NAME	INVERT ELEVATION UP.	INVERT ELEVATION DOWN.
1	2438.40	0		0.0	0.0
2	3020.00	0		0.0	0.0
3	3048.00	0	111K	0.00	0.0
1	0.0	11		0.0	0.0
2	0.0	9		0.0	0.0
3	0.0	8		0.0	0.0
4	2438.40	0		0.0	0.0
5	3020.00	0		0.0	0.0
6	3048.00	0	112K	0.0	0.0
7	3048.00	8		0.00	0.0
1	2438.40	0		0.0	0.0
2	3020.00	0		0.0	0.0

```
                                                                          3   3048.00   0  121K      0.00       0.0
4 122A JUNC   3060.00     15.24     -5.50   0    0.61 100.00      0.0       0.0
                                                                          1       0.0   11           0.0        0.0
                                                      ( DATA S=F(Y) :
           15.545     1.165   200.000     1.165                                                    )
                                                                          2      0.0    9            0.0        0.0
( RECTANGULAR WEIR - CREST ELEVATION  18.90 M , WIDTH   4.00 M , DISCHARGE COEFFICIENT 1.000 , LEAKAGE DISCHARGE 0.0   M3/S )
                                                                          3      0.0    8            0.0        0.0
                                                 (DATA :  0  3   1.000   0.0    15.240   0.472   0.0   )
                                                                          4   2438.40   0            0.0        0.0
                                                                          5   3020.00   0            0.0        0.0
                                                                          6   3048.00   0  122K      0.0        0.0
                                                                          7   3048.00   8            0.00       0.0
                                                 (DATA :  1  2   0.600   0.050   0.305   0.0     0.0   )
5 131A JUNC   3060.00    152.40     -5.50   0    0.61 100.00      0.0       0.0
                                                                          1   2438.40   0            0.0        0.0
                                                                          2   3020.00   0            0.0        0.0
                                                                          3   3048.00   0  131K      0.00       0.0
6 132A JUNC   3060.00    152.40     -5.50   0    0.61 100.00      0.0       0.0
                                                                          1       0.0   11           0.0        0.0
                                                      ( DATA S=F(Y) :
          152.705     1.165   200.000     1.165                                                    )
                                                                          2      0.0    9            0.0        0.0
( RECTANGULAR WEIR - CREST ELEVATION 156.06 M , WIDTH   4.00 M , DISCHARGE COEFFICIENT 1.000 , LEAKAGE DISCHARGE 0.0   M3/S )
                                                                          3      0.0    8            0.0        0.0
                                                 (DATA :  0  3   1.000   0.0   152.400   0.472   0.0   )
                                                                          4   2438.40   0            0.0        0.0
                                                                          5   3020.00   0            0.0        0.0
                                                                          6   3048.00   0  132K      0.0        0.0
                                                                          7   3048.00   8            0.00       0.0
                                                 (DATA :  1  2   0.600   0.050   0.305   0.0     0.0   )
7 211A JUNC   3060.00      1.52     -8.50   0    3.66 100.00      0.0       0.0
                                                                          1   2438.40   0            0.0        0.0
                                                                          2   3020.00   0            0.0        0.0
                                                                          3   3048.00   0  211K      0.00       0.0
8 212A JUNC   3060.00      1.52     -8.50   0    3.66 100.00      0.0       0.0
                                                                          1       0.0   11           0.0        0.0
                                                      ( DATA S=F(Y) :
            3.353    42.000   200.000    42.000                                                    )
                                                                          2      0.0    9            0.0        0.0
( RECTANGULAR WEIR - CREST ELEVATION  11.28 M , WIDTH  25.00 M , DISCHARGE COEFFICIENT 1.000 , LEAKAGE DISCHARGE 0.0   M3/S )
                                                                          3      0.0    8            0.0        0.0
                                                 (DATA :  0  3   1.000   0.0     1.524   2.835   0.0   )
                                                                          4   2438.40   0            0.0        0.0
                                                                          5   3020.00   0            0.0        0.0
                                                                          6   3048.00   0  212K      0.0        0.0
                                                                          7   3048.00   8            0.00       0.0
                                                 (DATA :  1  2   0.600   0.250   1.829   0.0     0.0   )
9 221A JUNC   3060.00     15.24     -8.50   0    3.66 100.00      0.0       0.0
                                                                          1   2438.40   0            0.0        0.0
                                                                          2   3020.00   0            0.0        0.0
                                                                          3   3048.00   0  221K      0.00       0.0
10 222A JUNC  3060.00     15.24     -8.50   0    3.66 100.00      0.0       0.0
                                                                          1       0.0   11           0.0        0.0
                                                      ( DATA S=F(Y) :
           17.069    42.000   200.000    42.000                                                    )
                                                                          2      0.0    9            0.0        0.0
( RECTANGULAR WEIR - CREST ELEVATION  24.99 M , WIDTH  25.00 M , DISCHARGE COEFFICIENT 1.000 , LEAKAGE DISCHARGE 0.0   M3/S )
                                                                          3      0.0    8            0.0        0.0
                                                 (DATA :  0  3   1.000   0.0    15.240   2.835   0.0   )
                                                                          4   2438.40   0            0.0        0.0
                                                                          5   3020.00   0            0.0        0.0
                                                                          6   3048.[illegible] [illegible] [illegible]  [illegible]  [illegible]
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                                                                          7   3048.00   8                 0.00      0.0
                                                      (DATA :  1  2   0.600   0.250   1.829   0.0     0.0    )
11 231A JUNC   3060.00     152.40     -8.50   0     3.66 100.00       0.0         0.0
                                                                          1   2438.40   0                 0.C       0.C
                                                                          2   3020.00   0                 0.0       0.0
                                                                          3   3048.00   0  231K           0.00      0.0
12 232A JUNC   3060.00     152.40     -8.50   0     3.66 100.00       0.0         0.0
                                                                          1       0.0  11                 0.0       0.0
                                                            ( DATA S=F(Y) :
                      154.229    42.000    200.000    42.000                                            1
                                                                          2       0.0   9                 0.C       0.C
 ( RECTANGULAR WEIR - CREST ELEVATION 162.15 M , WIDTH  25.00 M , DISCHARGE COEFFICIENT 1.000 , LEAKAGE DISCHARGE 0.0   M3/S )
                                                                          3       0.0   8                 0.C       0.0
                                                      (DATA :  0  3   1.000   0.0    152.400   2.835   0.0    )
                                                                          4   2438.40   0                 0.0       0.0
                                                                          5   3020.00   0                 0.C       0.C
                                                                          6   3048.00   0  232K           0.0       0.0
                                                                          7   3048.00   0                 0.00      0.0
                                                      (DATA :  1  2   0.600   0.250   1.829   0.0     0.0    )
13 112K JUNC     10.00       0.00     -5.50   0     0.61 100.00       0.0         0.0
                                                                          1       0.0   8                 0.C       0.0
                                                      (DATA :  1  0   0.600   0.0     0.000   0.305   0.0    )
14 212K JUNC     10.00       0.00     -8.50   0     3.66 100.00       0.0         0.0
                                                                          1       0.0   8                 0.C       0.C
                                                      (DATA :  1  0   0.600   0.0     0.000   1.829   0.0    )
15 122K JUNC     10.00       0.00     -5.50   0     0.61 100.00       0.0         0.0
                                                                          1       0.0   8                 0.C       0.C
                                                      (DATA :  1  0   0.600   0.0     0.000   0.305   0.0    )
16 222K JUNC     10.00       0.00     -8.50   0     3.66 100.00       0.0         0.0
                                                                          1       0.0   8                 0.0       0.C
                                                      (DATA :  1  0   0.600   0.0     0.000   1.829   0.0    )
17 132K JUNC     10.00       0.00     -5.50   0     0.61 100.00       0.0         0.0
                                                                          1       0.0   8                 0.C       0.C
                                                      (DATA :  1  0   0.600   0.0     0.000   0.305   0.0    )
18 232K JUNC     10.00       0.00     -8.50   0     3.66 100.00       0.0         0.0
                                                                          1       0.0   8                 0.0       0.0
                                                      (DATA :  1  0   0.600   0.0     0.000   1.829   0.0    )
19 JUNC DOWN      0.0       -8.50     -8.50   0     3.66 100.00       0.0         0.0
                                                                          1       0.0   1  DOWN           0.0       0.0

-----------------------------------------------------------------------------------------------------------------CONTROL---
- PIPE LENGTHS BETWEEN                              0.0  AND     3060.00 M

- PIPE RELATIVE DIMENSIONS BETWEEN                  0.61 AND        3.66

- STRICKLER VALUES BETWEEN                        100.00 AND      100.00

- PIPE INVERT ELEVATIONS BETWEEN                   -8.50 AND      152.40 M

- GROUND ELEVATIONS BETWEEN                         0.0  AND        0.0


                                                                                            - CROSS-SECTION PARAMETERS -


                                                 TYPES :   0
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- SECTION NO 1 (DIAMETER 1.0 , INTERVAL 0.020 M) - TYPE NO 0 , CIRCULAR -

LEVEL	WIDTH (M)	SURFACE (M2)	FLOW COEF. FOR STRICKLER 1.0	LEVEL	WIDTH (M)	SURFACE (M2)	FLOW COEF. FOR STRICKLER 1.0	LEVEL	WIDTH (M)	SURFACE (M2)	FLOW COEF. FOR STRICKLER 1.0
1	0.0	0.0	0.0	2	0.199	0.001	0.000	3	0.280	0.004	0.000
4	0.341	0.007	0.001	5	0.392	0.011	0.001	6	0.436	0.015	0.001
7	0.475	0.019	0.002	8	0.510	0.024	0.003	9	0.543	0.029	0.004
10	0.572	0.035	0.005	11	0.600	0.041	0.007	12	0.626	0.047	0.008
13	0.650	0.053	0.010	14	0.673	0.060	0.011	15	0.694	0.067	0.013
16	0.714	0.074	0.015	17	0.733	0.081	0.017	18	0.751	0.089	0.020
19	0.768	0.096	0.022	20	0.785	0.104	0.025	21	0.800	0.112	0.027
22	0.815	0.120	0.030	23	0.828	0.128	0.033	24	0.842	0.136	0.036
25	0.854	0.145	0.039	26	0.866	0.154	0.043	27	0.877	0.162	0.046
28	0.888	0.171	0.050	29	0.898	0.180	0.053	30	0.908	0.189	0.057
31	0.917	0.198	0.061	32	0.925	0.207	0.065	33	0.933	0.217	0.069
34	0.940	0.226	0.073	35	0.947	0.235	0.078	36	0.954	0.245	0.082
37	0.960	0.255	0.086	38	0.966	0.264	0.091	39	0.971	0.274	0.096
40	0.975	0.284	0.100	41	0.980	0.293	0.105	42	0.984	0.303	0.110
43	0.987	0.313	0.115	44	0.990	0.323	0.120	45	0.993	0.333	0.125
46	0.995	0.343	0.130	47	0.997	0.353	0.135	48	0.998	0.363	0.140
49	0.999	0.373	0.145	50	1.000	0.383	0.151	51	1.000	0.393	0.156
52	1.000	0.403	0.161	53	0.999	0.413	0.166	54	0.998	0.423	0.172
55	0.997	0.433	0.177	56	0.995	0.443	0.183	57	0.993	0.453	0.188
58	0.990	0.462	0.193	59	0.987	0.472	0.199	60	0.984	0.482	0.204
61	0.980	0.492	0.209	62	0.975	0.502	0.215	63	0.971	0.512	0.220
64	0.966	0.521	0.225	65	0.960	0.531	0.231	66	0.954	0.540	0.236
67	0.947	0.550	0.241	68	0.940	0.559	0.246	69	0.933	0.569	0.251
70	0.925	0.578	0.256	71	0.917	0.587	0.261	72	0.908	0.596	0.266
73	0.898	0.605	0.271	74	0.888	0.614	0.275	75	0.877	0.623	0.280
76	0.866	0.632	0.284	77	0.854	0.640	0.289	78	0.842	0.649	0.293
79	0.828	0.657	0.297	80	0.815	0.666	0.301	81	0.800	0.674	0.305
82	0.785	0.682	0.308	83	0.768	0.689	0.312	84	0.751	0.697	0.312
85	0.733	0.704	0.312	86	0.714	0.712	0.312	87	0.694	0.719	0.312
88	0.673	0.725	0.312	89	0.650	0.732	0.312	90	0.626	0.738	0.312
91	0.600	0.745	0.312	92	0.572	0.750	0.312	93	0.543	0.756	0.312
94	0.510	0.761	0.312	95	0.475	0.766	0.312	96	0.436	0.771	0.312
97	0.392	0.775	0.312	98	0.341	0.779	0.312	99	0.280	0.782	0.312
100	0.199	0.784	0.312	101	0.001	0.785	0.312	102	0.001	0.785	0.312

- NODE GROUPS DEFINITION -

- GROUP NO 1 , 1 NODES : JUNC

(TOTAL NUMBER OF NODES : 1 , MAXIMUM NUMBER OF NODES IN ONE GROUP : 1)

- TIME VARYING DATA -

THE VARYING DATA ARE SUPPLIED AT POINTS:

1114 1124 1214 1224 1314 1324 2114 2124 2214 2224 2314 2324 OCm.

- END OF THE JOB -

* THE MINIMUM MAIN STORAGE REQUIRED FOR THE FLOW COMPUTATION IS 1346 WORDS

* THE OPTIMAL SIZE 'IJMX' OF ARRAY 'STEP' IS 99 WORDS ; THEN :

* THE INSTRUCTION DEFINING THE DIRECT ACCESS VOLUME IS : -DEFINE FILE 8 (12, 100,U,NREC)

* THE TOTAL NUMBER OF COMPUTATION POINTS IS : 236(OF WHICH 36 ARE OF THE LOOPED TYPE AND 200 ARE NOT)

* THE AUTOMATIC COMPUTATION OF THE INITIAL STATE WOULD START WITH Y= 152.60 M AND Q= 0 M3/S AT ANY POINT OF THE MODEL.

* THE TOTAL NUMBER OF CODED INSTRUCTIONS IS : 175

- TIME VARYING DATA -

- RAINFALL REFERENCE INFLOW SHAPE #3
- NUMBER OF INPUT NODES 13
- NUMBER OF INPUT TIMES 4
- LIST OF INPUT DATA

* INPUT TIMES (H) :	[illegible]	11.000	12.000	24.000
* POINT 111A	0.017	0.166	0.017	0.017
* POINT 112A	0.017	0.166	0.017	0.017
* POINT 121A	0.053	0.531	0.053	0.053
* POINT 122A	0.053	0.531	0.053	0.053
* POINT 131A	0.168	1.680	0.168	0.168
* POINT 132A	0.168	1.680	0.168	0.168
* POINT 211A	1.997	19.975	1.997	1.997
* POINT 212A	1.997	19.975	1.997	1.997
* POINT 221A	6.317	63.167	6.317	6.317
* POINT 222A	6.317	63.167	6.317	6.317
* POINT 231A	19.975	199.750	19.975	19.975

[illegible]	[illegible]	19.975	19.975
[illegible]	-5.000	-5.000	-5.000

- GENERAL DATA -

- COMPUTER CODE..... 3000 14386/1015 912 0 814 6/0.01.0
- MODEL REFERENCE..... BATTELLE TESTS 1
- RAINFALL REFERENCE..... INFLOW SHAPE #3
- PRINTING OF RESULTS EVERY..... 2 CYCLE(S)
- COMPUTATION RESUMPTION TIME..... 0.0 H.
- INITIALIZATION OPTION..... 1
- STRICKLER VALUES MULTIPLYING FACTOR..... 1.000
- SIMULATION START TIME..... 10.000 H.
- SIMULATION END TIME..... 16.000 H.
- INITIAL TIME STEP..... 5.000 MN.
- MAXIMUM NUMBER OF COMPUTATION CYCLES..... 0
- NUMBER OF TIME STEP MODIFICATIONS..... 5

- FROM :	THE TIME STEP IS :
10.840 H	1.00000 MN
11.000 H	0.50000 MN
11.450 H	1.00000 MN
13.000 H	2.50000 MN
14.000 H	5.00000 MN

- COMMENTS :

Results on tape Series 1.5

[illegible] TIME STEP = [illegible] S. , CYCLE [illegible]

PIPE NO.		POINT A	B	C	D	E	F	G	Outlet or Wire (A)	[illegible]
[illegible]	Y	1.6480			1.3430	1.0380	0.7330	0.4280	0.0250	
	Q	0.0170			0.0170	0.0170	0.0170	0.0170	0.0170	
[illegible]	Y	1.6480	1.6480	1.6480	1.3430	1.0380	0.7330	0.4290	0.1260	0.1260
	Q	0.0170	0.0170	0.0170	0.0170	0.0170	0.0170	0.0170	0.0	0.0170
[illegible]	Y	15.3640			12.3160	9.2680	6.2200	3.1720	0.0430	
	Q	0.0530			0.0530	0.0530	0.0530	0.0530	0.0530	
[illegible]	Y	15.3660	15.3660	15.3640	12.3160	9.2680	6.2200	3.1720	0.2390	0.2390
	Q	0.0530	0.0530	0.0530	0.0530	0.0530	0.0530	0.0530	0.0	0.0530
[illegible]	Y	152.5240			122.0440	91.5640	61.0840	30.6040	0.0740	
	Q	0.1680			0.1680	0.1680	0.1680	0.1680	0.1680	
[illegible]	Y	152.5440	152.5440	152.5240	122.0440	91.5640	61.0840	30.6040	0.4500	0.4500
	Q	0.1660	0.1680	0.1680	0.1680	0.1680	0.1680	0.1660	0.0620	0.1060
[illegible]	Y	2.2660			1.9600	1.6510	1.3320	0.9740	0.1480	
	Q	1.9970			1.9970	1.9970	1.9970	1.9970	1.9970	
[illegible]	Y	2.2690	2.2690	2.2670	1.9630	1.6620	1.3680	1.0980	0.8850	0.8850
	Q	1.9970	1.9970	1.9970	1.9970	1.9970	1.9970	1.9970	0.0	1.9970
[illegible]	Y	15.9820			12.9340	9.8860	6.8380	3.7880	0.2540	
	Q	6.3170			6.3170	6.3170	6.3170	6.3170	6.3170	
[illegible]	Y	16.0050	16.0050	15.9820	12.9340	9.8860	6.8390	3.8070	1.7480	1.7480
	Q	6.3170	6.3170	6.3170	6.3170	6.3170	6.3170	6.3170	0.0	6.3170
[illegible]	Y	153.1420			122.6620	92.1820	61.7020	31.2220	0.4350	
	Q	19.9750			19.9750	19.9750	19.9750	19.9750	19.9750	
[illegible]	Y	153.3650	153.3650	153.1420	122.6620	92.1820	61.7020	31.2230	3.1280	3.1280
	Q	19.9750	19.9750	19.9750	19.9750	19.9750	19.9750	19.9750	9.5860	10.3880

[illegible] TIME STEP = [illegible] S. , CYCLE [illegible]

PIPE NO.		POINT A	B	C	D	E	F	G	K	J
111	Y	1.7125			1.3499	1.0385	0.7334	0.4276	0.0249	
	Q	0.0420			0.0190	0.0169	0.0168	0.0169	0.0169	
112	Y	1.7115	1.7115	1.7125	1.3499	1.0385	0.7334	0.4266	0.1256	0.1256
	Q	0.0420	0.0420	0.0420	0.0190	0.0169	0.0168	0.0168	-0.0000	0.0168
121	Y	15.4370			12.3624	9.2890	6.2285	3.1752	0.0432	
	Q	0.1328			0.0974	0.0724	0.0608	0.0561	0.0544	
122	Y	15.4415	15.4414	15.4370	12.3624	9.2890	6.2285	3.1752	0.2417	0.2417
	Q	0.1328	0.1328	0.1328	0.0974	0.0724	0.0608	0.0561	-0.0000	0.0540
131	Y	152.5970			122.1099	91.6216	61.1318	30.6418	0.0916	
	Q	0.4200			0.3854	0.3477	0.3121	0.2813	0.2560	
132	Y	152.6415	152.6415	152.5970	122.1099	91.6216	61.1318	30.6418	0.5537	0.5537
	Q	0.4200	0.4200	0.4200	0.3854	0.3477	0.3121	0.2813	0.1288	0.1245
211	Y	2.6325			2.2199	1.8011	1.4097	1.0122	0.1534	
	Q	4.9937			3.9326	3.0544	2.5312	2.2613	2.1539	
212	Y	2.6395	2.6392	2.6337	2.2233	1.8116	1.4453	1.1356	0.9075	0.9075
	Q	4.9937	4.9937	4.9937	3.9333	3.0492	2.5243	2.2444	0.0000	2.0919
221	Y	16.4276			13.3372	10.2341	7.1360	4.0249	0.3154	
	Q	15.7917			14.5436	13.1834	11.8814	10.7301	9.9178	
222	Y	16.4760	16.4751	16.4276	13.3372	10.2341	7.1367	4.0629	2.2351	2.2351
	Q	15.7917	15.7917	15.7917	14.5436	13.1834	11.8808	10.6962	0.7894	8.1363
231	Y	153.5849			123.0900	92.5988	62.1075	32.6087	0.6341	
	Q	49.9374			48.7860	47.5414	46.2394	44.8935	43.5906	
232	Y	154.0655	154.0625	153.5849	123.0900	92.5988	62.1075	32.6094	5.3888	5.3888
	Q	49.9374	49.9374	49.9374	48.7860	47.5414	46.2394	44.8923	25.7164	15.2179

[illegible] TIME STEP = [illegible] S. , CYCLE [illegible]

[illegible]		POINT A	B	C	D	E	F	G	H	J
[illegible]	Y	1.9567			1.6[illegible]1	1.2443	0.8830	0.5156	0.0325	
	Q	0.1657			0.1423	0.1147	0.0838	0.0519	0.0299	
[illegible]	Y	1.9535	1.9535	1.9506	1.5999	1.2442	0.8830	0.5152	0.1577	0.1577
	Q	0.1657	0.1657	0.1657	0.1427	0.1147	0.0838	0.0517	-0.0000	0.0256
[illegible]	Y	15.6873			12.6292	9.5616	6.4953	3.4291	0.1115	
	Q	0.5234			0.5098	0.4799	0.4509	0.4221	0.3971	
[illegible]	Y	15.7178	15.7178	15.6874	12.6291	9.5615	6.4952	3.4312	0.7761	0.7761
	Q	0.5234	0.5236	0.5236	0.5097	0.4798	0.4508	0.4216	0.2290	0.1534
[illegible]	Y	152.8474			122.3698	91.8847	61.3983	30.9120	0.2220	
	Q	1.6548			1.6657	1.6427	1.6133	1.5635	1.5553	
[illegible]	Y	153.1512	153.1512	152.8475	122.3698	91.8847	61.3982	30.9124	6.0099	6.0099
	Q	1.6548	1.6552	1.6552	1.6655	1.6424	1.6130	1.5832	0.9369	0.4759
[illegible]	Y	3.9723			3.5896	3.1552	2.6712	2.0815	0.4014	
	Q	19.6754			19.4241	18.6440	17.9023	17.2609	16.8495	
[illegible]	Y	4.1216	4.1217	4.0909	3.7716	3.4491	3.1573	2.9021	2.6854	2.6854
	Q	19.6754	19.6753	19.6753	19.1041	17.9597	16.7917	15.6604	5.3197	9.2920
[illegible]	Y	17.9227			14.8835	11.8081	8.7109	5.5202	0.7278	
	Q	62.2195			62.5791	61.8766	60.8844	59.9257	59.2582	
[illegible]	Y	18.2587	18.2588	17.9301	15.4014	14.1000	12.2207	10.3457	8.4734	8.4734
	Q	62.2195	62.2497	62.2497	58.5319	53.3028	53.2790	53.2612	34.0434	19.2055
[illegible]	Y	155.0843			124.6162	94.1421	63.6613	33.1736	1.3100	
	Q	196.7538			197.7715	198.2358	198.1216	197.6033	196.9521	
[illegible]	Y	158.3615	158.3618	155.0851	124.2789	106.5222	90.4403	74.3278	58.1973	58.1973
	Q	196.7538	196.8794	196.8784	200.3268	160.9111	160.9455	160.9565	108.0758	52.8778

SOG
Dec 1.2 [illegible]

S O G R E A H

12. JULY 1974

SERVICE SCIENTIFIQUE D'APPLICATION

- BATTELLE TESTS * SEWERAGE NETWORK CONCENTRATION ROUTING PROGRAM

CALCUL DES RESEAUX D'ASSAINISSEMENT - PROGRAMME CARIDAS / CONVEC

SOG
Doc no. 8.

S O G R E A H

SERVICE SCIENTIFIQUE D'APPLICATION

5. JULY 1974

* BATTELLE TESTS * SEWERAGE NETWORK FLOW ROUTING PROGRAM

INFLOW #3

CALCUL DES RESEAUX D'ASSAINISSEMENT - PROGRAMME 'CAREDAS - FUMA'

- GENERAL DATA -

- COMPUTER CODE..... 5000/121413
- DATE OF THE FLOW COMPUTATION..... 5, JULY 1974
- MODEL REFERENCE.....BATTELLE TESTS 1
- RAINFALL REFERENCE.....INFLOW SHAPE #3
- INITIAL CONCENTRATION..... 100.000 PPM
- SIMULATION END TIME..... 18.000 H
- PRINTING OF RESULTS EVERY..... 2 CYCLE(S)
- NUMBER OF TRACERS..... 3
- NUMBER OF RETENTION BASINS..... 6

* BATTELLE TESTS - TIME = 10 H 0 MN 0 S. (36000. S.), TIME STEP = 300 S. , CYCLE 0

PIPE NO		POINT A	B	C	D	E	F	G	H	I
111	#1	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
	#2	0.0			0.0	0.0	0.0	0.0	0.0	
	#3	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
112	#1	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
	#2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	#3	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
121	#1	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
	#2	0.0			0.0	0.0	0.0	0.0	0.0	
	#3	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
122	#1	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
	#2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	#3	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
131	#1	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
	#2	0.0			0.0	0.0	0.0	0.0	0.0	
	#3	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
132	#1	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
	#2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	#3	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
211	#1	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
	#2	0.0			0.0	0.0	0.0	0.0	0.0	
	#3	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
212	#1	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
	#2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	#3	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
221	#1	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
	#2	0.0			0.0	0.0	0.0	0.0	0.0	
	#3	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
222	#1	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
	#2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	#3	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
231	#1	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
	#2	0.0			0.0	0.0	0.0	0.0	0.0	
	#3	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
232	#1	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
	#2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	#3	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000

* BATTELLE TESTS = T I M E = 10 H 10 MN 0 S. (36600. S.), TIME STEP = 300 S. , CYCLE 2

PIPE NO		POINT A	B	C	D	E	F	G	K	J
111	#1	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
	#2	16.6666			0.0	0.0	0.0	0.0	0.0	
	#3	83.3334			100.0000	100.0000	100.0000	100.0000	100.0000	
112	#1	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
	#2	16.6666	16.6666	16.6666	0.0	0.0	0.0	0.0	0.0	0.0
	#3	83.3334	83.3333	83.3333	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
121	#1	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
	#2	16.6666			3.6183	0.2482	0.0125	0.0006	0.0000	
	#3	83.3334			96.3817	99.7518	99.9875	99.9994	99.9999	
122	#1	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
	#2	16.6666	16.6666	16.6666	3.6183	0.2482	0.0125	0.0006	0.0000	0.0000
	#3	83.3334	83.3334	83.3334	96.3817	99.7518	99.9875	99.9994	100.0000	100.0000
131	#1	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
	#2	16.6666			12.7550	9.0745	6.1483	4.0208	2.6077	
	#3	83.3334			87.2449	90.9255	93.8517	95.9791	97.3922	
132	#1	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	99.9999	99.9999
	#2	16.6666	16.6666	16.6666	12.7550	9.0745	6.1483	4.0208	2.2993	2.2993
	#3	83.3334	83.3333	83.3333	87.2449	90.9254	93.8516	95.9791	97.7007	97.7007
211	#1	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
	#2	16.6666			4.6462	0.5011	0.0435	0.0048	0.0017	
	#3	83.3334			95.3538	99.4989	99.9565	99.9952	99.9983	
212	#1	100.0000	99.9999	99.9999	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
	#2	16.6666	16.6666	16.6666	4.5853	0.4586	0.0295	0.0011	0.0000	0.0000
	#3	83.3334	83.3333	83.3333	95.4146	99.5414	99.9704	99.9989	100.0000	100.0000
221	#1	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
	#2	16.6666			12.9049	9.3524	6.4797	4.3499	3.1485	
	#3	83.3334			87.0950	90.6476	93.5202	95.6501	96.8514	
222	#1	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	99.9999	99.9999
	#2	16.6666	16.6666	16.6666	12.9049	9.3523	6.4792	4.3036	1.3552	1.3552
	#3	83.3334	83.3333	83.3333	87.0950	90.6476	93.5208	95.6963	98.6447	98.6447
231	#1	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
	#2	16.6666			15.4994	14.3220	13.1601	12.0322	11.0149	
	#3	83.3334			84.5006	85.6779	86.8398	87.9677	88.9850	
232	#1	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
	#2	16.6666	16.6666	16.6666	15.4993	14.3220	13.1601	12.0323	9.3770	9.3770
	#3	83.3334	83.3334	83.3334	84.5006	85.6779	86.8398	87.9676	90.6229	90.6229

PIPE NO		POINT A	B	C	D	E	F	G	K	J
111	#1	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
	#2	99.9999			76.3102	48.1478	17.4039	2.0397	0.0977	
	#3	0.0001			23.6897	51.8520	82.5910	97.9602	99.9023	
112	#1	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
	#2	99.9999	99.9828	99.9828	76.3026	48.1429	17.4017	2.0145	0.0291	0.0291
	#3	0.0001	0.0171	0.0171	23.6975	51.8569	82.5991	97.9854	99.9709	99.9708
121	#1	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
	#2	99.9999			92.4752	84.6953	76.5862	68.0468	60.4957	
	#3	0.0001			7.5237	15.3046	23.4154	31.9530	39.5041	
122	#1	100.0000	100.0000	100.0000	100.0000	99.9999	99.9999	99.9999	99.9999	99.9999
	#2	99.9999	99.9917	99.9917	92.4695	84.6901	76.5802	68.0199	54.7367	54.7367
	#3	0.0001	0.0083	0.0083	7.5304	15.3097	23.4196	31.9799	45.2630	45.2630
131	#1	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
	#2	99.9999			97.6445	95.2743	92.8854	90.4626	88.1261	
	#3	0.0001			2.3555	4.7257	7.1145	9.5373	11.8738	
132	#1	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	99.9999	99.9999
	#2	99.9999	99.9930	99.9930	97.6378	95.2680	92.8797	90.4560	87.1393	87.1393
	#3	0.0001	0.0070	0.0070	2.3621	4.7319	7.1203	9.5439	12.8605	12.8605
211	#1	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
	#2	99.9999			93.5857	87.1008	80.6999	74.8637	71.5267	
	#3	0.0001			6.4142	12.8991	19.2999	25.1361	28.4730	
212	#1	100.0000	99.9999	99.9999	100.0000	100.0000	100.0000	99.9999	99.9999	99.9999
	#2	99.9999	99.9673	99.9673	93.7731	85.7415	77.7341	68.6481	57.7696	57.7696
	#3	0.0001	0.0327	0.0327	6.9269	14.2584	22.2657	31.3517	42.2301	42.2301
221	#1	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
	#2	99.9999			97.7505	95.4879	93.2159	90.9821	89.4480	
	#3	0.0001			2.2493	4.5121	6.7841	9.0178	10.5519	
222	#1	100.0000	100.0000	100.0000	100.0000	99.9999	99.9999	99.9999	99.9999	99.9999
	#2	99.9999	99.9836	99.9836	97.7023	94.8260	91.7037	88.4384	85.3038	85.3038
	#3	0.0001	0.0163	0.0163	2.2976	5.1738	8.2963	11.5614	14.6960	14.6960
231	#1	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
	#2	99.9999			99.2876	98.5741	97.8593	97.1433	96.5113	
	#3	0.0001			0.7124	1.4259	2.1406	2.8566	3.4886	
232	#1	100.0000	100.0000	100.0000	99.9999	99.9999	99.9999	99.9999	99.9998	99.9998
	#2	99.9999	99.9803	99.9803	99.7673	98.4390	97.3591	96.2457	95.1104	95.1104
	#3	0.0001	0.0196	0.0196	0.7326	1.5608	2.6408	3.7542	4.8895	4.8895

PIPE NO		POINT A	B	C	D	E	F	G	K	J
111	#1	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
	#2	98.3333			78.0922	50.2129	19.3239	2.6345	0.1615	
	#3	1.6666			21.9077	49.7869	80.6759	97.3654	99.8384	
112	#1	100.0000	99.9999	99.9999	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
	#2	98.3333	98.3515	98.3515	78.0935	50.2074	19.3140	2.6025	0.0527	0.0527
	#3	1.6666	1.6483	1.6483	21.9163	49.7923	80.6839	97.3974	99.9472	99.9472
121	#1	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
	#2	98.3333			94.1680	86.4307	78.3742	69.9115	62.4628	
	#3	1.6666			5.8320	13.5692	21.6256	30.0883	37.5369	
122	#1	100.0000	100.0000	100.0000	100.0000	99.9999	99.9999	99.9999	99.9999	99.9999
	#2	98.3333	98.3421	98.3421	94.1608	86.4252	78.3699	69.8813	56.8504	56.8504
	#3	1.6666	1.6579	1.6579	5.8391	13.5746	21.6299	30.1184	43.1492	43.1492
131	#1	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
	#2	98.3333			99.3175	96.9536	94.5738	92.1701	89.8533	
	#3	1.6666			0.6825	3.0464	5.4261	7.8298	10.1466	
132	#1	100.0000	99.9999	99.9999	100.0000	100.0000	100.0000	100.0000	99.9999	99.9999
	#2	98.3333	98.3408	98.3408	99.3106	96.9470	94.5676	92.1629	88.8813	88.8813
	#3	1.6666	1.6592	1.6592	0.6893	3.0529	5.4323	7.8370	11.1185	11.1185
211	#1	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
	#2	98.3333			95.2859	88.8563	82.5177	76.7491	73.4649	
	#3	1.6666			4.7141	11.1436	17.4821	23.2507	26.5349	
212	#1	100.0000	100.0000	100.0000	99.9999	100.0000	100.0000	99.9999	99.9999	99.9999
	#2	98.3333	98.3685	98.3685	94.7484	87.4366	79.4643	70.4550	59.7521	59.7521
	#3	1.6666	1.6315	1.6315	5.2515	12.5633	20.5355	29.5448	40.2476	40.2476
221	#1	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
	#2	98.3333			99.4238	97.1677	94.9052	92.6926	91.1779	
	#3	1.6666			0.5762	2.8323	5.0947	7.3074	8.8220	
222	#1	100.0000	99.9999	99.9999	100.0000	99.9999	99.9999	99.9999	99.9999	99.9999
	#2	98.3333	98.3507	98.3507	99.2772	96.3293	93.2315	90.0437	86.8424	86.8424
	#3	1.6666	1.6492	1.6492	0.7227	3.6706	6.7683	9.9561	13.1574	13.1574
231	#1	100.0000			100.0000	100.0000	100.0000	100.0000	100.0000	
	#2	98.3333			99.0437	99.3474	99.1489	98.6633	98.1196	
	#3	1.6666			0.9562	0.6526	0.8510	1.3366	1.8803	
232	#1	100.0000	100.0000	100.0000	100.0000	99.9999	99.9999	99.9999	99.9999	99.9999
	#2	98.3333	98.3544	98.3544	99.0333	99.4028	98.8362	97.8646	96.7731	96.7731
	#3	1.6666	1.6456	1.6456	0.9667	0.5971	1.1637	2.1353	3.2267	3.2267

```
* UPD DATA,DATA                                                    18 JUN 74   00:00:12.252
DATE, TIME, LEVEL OF OUTPUT ELEMENT: 18 JUN 74  19:34(00)
000001                                    14        15        11        12
000002          EPA SEWER MODEL EVALUATION
000003          BATTELLE PACIFIC NORTHWEST LABORATORIES
000004             1   96 10 0  5.0    10.001
000005            26  5.0
000006          0.0000.0830.2500.4170.5830.7500.9171.0831.2501.417
000007          1.5831.7501.9171.9171.7501.5831.4171.2501.0830.917
000008          0.7500.5830.4170.2500.0830.000
000009             81    82  1          1.0   100.0   0.001     1.0     1.0   0.025
000010
000011             1     1  1  50011.48    00.0010.025 0.25 0.05  0.2  2.0  0.50.001
000012             2     2  1  50011.48   250.0010.025 0.25 0.05  0.2  2.0  0.50.001
000013             3     3  1  50011.48   500.0010.025 0.25 0.05  0.2  2.0  0.50.001
000014             4     4  1  50011.48   750.0010.025 0.25 0.05  0.2  2.0  0.50.001
000015             5     5  1  50011.48  1000.0010.025 0.25 0.05  0.2  2.0  0.50.001
000016             6     6  1  50011.48     0.1000.025 0.25 0.05  0.2  2.0  0.50.001
000017             7     7  1  50011.48   250.1000.025 0.25 0.05  0.2  2.0  0.50.001
000018             8     8  1  50011.48   500.1000.025 0.25 0.05  0.2  2.0  0.50.001
000019             9     9  1  50011.48   750.1000.025 0.25 0.05  0.2  2.0  0.50.001
000020            10    10  1  50011.48  1000.1000.025 0.25 0.05  0.2  2.0  0.50.001
000021            11    11  1  50011.48     0.0010.025 0.25.0001.0001  0.5  0.50.001
000022            12    12  1  50011.48   250.0010.025 0.25.0001.0001  0.5  0.50.001
000023            13    13  1  50011.48   500.0010.025 0.25.0001.0001  0.5  0.50.001
000024            14    14  1  50011.48   750.0010.025 0.25.0001.0001  0.5  0.50.001
000025            15    15  1  50011.48  1000.0010.025 0.25.0001.0001  0.5  0.50.001
000026            16    16  1  50011.48     0.1000.025 0.25.0001.0001  0.5  0.50.001
000027            17    17  1  50011.48   250.1000.025 0.25.0001.0001  0.5  0.50.001
000028            18    18  1  50011.48   500.1000.025 0.25.0001.0001  0.5  0.50.001
000029            19    19  1  50011.48   750.1000.025 0.25.0001.0001  0.5  0.50.001
000030            20    20  1  50011.48  1000.1000.025 0.25.0001.0001  0.5  0.50.001
000031            21    21  1 100011.48    00.0010.025 0.25 0.05  0.2  2.0  0.50.001
000032            22    22  1 100011.48   250.0010.025 0.25 0.05  0.2  2.0  0.50.001
000033            23    23  1 100011.48   500.0010.025 0.25 0.05  0.2  2.0  0.50.001
000034            24    24  1 100011.48   750.0010.025 0.25 0.05  0.2  2.0  0.50.001
000035            25    25  1 100011.48  1000.0010.025 0.25 0.05  0.2  2.0  0.50.001
000036            26    26  1 100011.48     0.1000.025 0.25 0.05  0.2  2.0  0.50.001
000037            27    27  1 100011.48   250.1000.025 0.25 0.05  0.2  2.0  0.50.001
000038            28    28  1 100011.48   500.1000.025 0.25 0.05  0.2  2.0  0.50.001
000039            29    29  1 100011.48   750.1000.025 0.25 0.05  0.2  2.0  0.50.001
000040            30    30  1 100011.48  1000.1000.025 0.25 0.05  0.2  2.0  0.50.001
000041            31    31  1 100011.48     0.0010.025 0.25.0001.0001  0.5  0.50.001
000042            32    32  1 100011.48   250.0010.025 0.25.0001.0001  0.5  0.50.001
000043            33    33  1 100011.48   500.0010.025 0.25.0001.0001  0.5  0.50.001
000044            34    34  1 100011.48   750.0010.025 0.25.0001.0001  0.5  0.50.001
000045            35    35  1 100011.48  1000.0010.025 0.25.0001.0001  0.5  0.50.001
000046            36    36  1 100011.48     0.1000.025 0.25.0001.0001  0.5  0.50.001
000047            37    37  1 100011.48   250.1000.025 0.25.0001.0001  0.5  0.50.001
000048            38    38  1 100011.48   500.1000.025 0.25.0001.0001  0.5  0.50.001
000049            39    39  1 100011.48   750.1000.025 0.25.0001.0001  0.5  0.50.001
000050            40    40  1 100011.48  1000.1000.025 0.25.0001.0001  0.5  0.50.001
000051            41    41  1  158 1.15    00.0010.025 0.25 0.05  0.2  2.0  0.50.001
000052            42    42  1  158 1.15   250.0010.025 0.25 0.05  0.2  2.0  0.50.001
000053            43    43  1  158 1.15   500.0010.025 0.25 0.05  0.2  2.0  0.50.001
000054            44    44  1  158 1.15   750.0010.025 0.25 0.05  0.2  2.0  0.50.001
000055            45    45  1  158 1.15  1000.0010.025 0.25 0.05  0.2  2.0  0.50.001
000056            46    46  1  158 1.15     0.1000.025 0.25 0.05  0.2  2.0  0.50.001
000057            47    47  1  158 1.15   250.1000.025 0.25 0.05  0.2  2.0  0.50.001
000058            48    48  1  158 1.15   500.1000.025 0.25 0.05  0.2  2.0  0.50.001
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000059      49    49   1  158 1.15   750.1000.025 0.25 0.05  0.2  2.0  0.50.001
000060      50    50   1  158 1.15  1000.1000.025 0.25 0.05  0.2  2.0  0.50.001
000061      51    51   1  158 1.15     0.0010.025 0.25.0001.0001  0.5  0.50.001
000062      52    52   1  158 1.15   250.0010.025 0.25.0001.0001  0.5  0.50.001
000063      53    53   1  158 1.15   500.0010.025 0.25.0001.0001  0.5  0.50.001
000064      54    54   1  158 1.15   750.0010.025 0.25.0001.0001  0.5  0.50.001
000065      55    55   1  158 1.15  1000.0010.025 0.25.0001.0001  0.5  0.50.001
000066      56    56   1  158 1.15     0.1000.025 0.25.0001.0001  0.5  0.50.001
000067      57    57   1  158 1.15   250.1000.025 0.25.0001.0001  0.5  0.50.001
000068      58    58   1  158 1.15   500.1000.025 0.25.0001.0001  0.5  0.50.001
000069      59    59   1  158 1.15   750.1000.025 0.25.0001.0001  0.5  0.50.001
000070      60    60   1  158 1.15  1000.1000.025 0.25.0001.0001  0.5  0.50.001
000071      61    61   1  316 1.15     0.0010.025 0.25 0.05  0.2  2.0  0.50.001
000072      62    62   1  316 1.15   250.0010.025 0.25 0.05  0.2  2.0  0.50.001
000073      63    63   1  316 1.15   500.0010.025 0.25 0.05  0.2  2.0  0.50.001
000074      64    64   1  316 1.15   750.0010.025 0.25 0.05  0.2  2.0  0.50.001
000075      65    65   1  316 1.15  1000.0010.025 0.25 0.05  0.2  2.0  0.50.001
000076      66    66   1  316 1.15     0.1000.025 0.25 0.05  0.2  2.0  0.50.001
000077      67    67   1  316 1.15   250.1000.025 0.25 0.05  0.2  2.0  0.50.001
000078      68    68   1  316 1.15   500.1000.025 0.25 0.05  0.2  2.0  0.50.001
000079      69    69   1  316 1.15   750.1000.025 0.25 0.05  0.2  2.0  0.50.001
000080      70    70   1  316 1.15  1000.1000.025 0.25 0.05  0.2  2.0  0.50.001
000081      71    71   1  316 1.15     0.0010.025 0.25.0001.0001  0.5  0.50.001
000082      72    72   1  316 1.15   250.0010.025 0.25.0001.0001  0.5  0.50.001
000083      73    73   1  316 1.15   500.0010.025 0.25.0001.0001  0.5  0.50.001
000084      74    74   1  316 1.15   750.0010.025 0.25.0001.0001  0.5  0.50.001
000085      75    75   1  316 1.15  1000.0010.025 0.25.0001.0001  0.5  0.50.001
000086      76    76   1  316 1.15     0.1000.025 0.25.0001.0001  0.5  0.50.001
000087      77    77   1  316 1.15   250.1000.025 0.25.0001.0001  0.5  0.50.001
000088      78    78   1  316 1.15   500.1000.025 0.25.0001.0001  0.5  0.50.001
000089      79    79   1  316 1.15   750.1000.025 0.25.0001.0001  0.5  0.50.001
000090      80    80   1  316 1.15  1000.1000.025 0.25.0001.0001  0.5  0.50.001
000091      81    81   1  316 1.15  1300.1000.025 0.25.0001.0001  0.5  0.50.001
000092
000093
000094      80    1
000095       1    2    3    4    5    6    7    8    9   10   11   12   13   14   15   16
000096      17   18   19   20   21   22   23   24   25   26   27   28   29   30   31   32
000097      33   34   35   36   37   38   39   40   41   42   43   44   45   46   47   48
000098      49   50   51   52   53   54   55   56   57   58   59   60   61   62   63   64
000099      65   66   67   68   69   70   71   72   73   74   75   76   77   78   79   80
000100      80
000101       1    2    3    4    5    6    7    8    9   10   11   12   13   14   15   16
000102      17   18   19   20   21   22   23   24   25   26   27   28   29   30   31   32
000103      33   34   35   36   37   38   39   40   41   42   43   44   45   46   47   48
000104      49   50   51   52   53   54   55   56   57   58   59   60   61   62   63   64
000105      65   66   67   68   69   70   71   72   73   74   75   76   77   78   79   80
000106  10000000000000000000000
```

WRE URBAN RUNOFF SIMUALTION MODEL
SURFACE DRAINAGE QUANTITY AND QUALITY.....

TAPE ASSIGNMENTS

QUANTITY INPUT	QUALITY INPUT	QUANTITY OUTPUT	QUALITY OUTPUT	PRINT FILE	PLOT FILE
0	0	14	15	11	12

SEATTLE URBAN RUNOFF AND BASIN DRAINAGE STUDY
MODIFIED EPA SURFACE RUNOFF MODEL

WATER RESOURCES ENGINEERS, INC.
WALNUT CREEK, CALIFORNIA

EPA SEWER MODEL EVALUATION
BATTELLE PACIFIC NORTHWEST LABORATORIES

BASIN NUMBER 1

NUMBER OF TIME STEPS 96

INTEGRATION TIME INTERVAL (MINUTES), 5.00

.0 PERCENT OF IMPERVIOUS AREA HAS ZERO DETENTION DEPTH

FOR 26 RAINFALL STEPS, THE TIME INTERVAL IS 5.00 MINUTES

FOR RAINGAGE NUMBER 1 RAINFALL HISTORY IS

.08	.08	.25	.42	.58	.75	.92	1.08	1.25	1.42
1.58	1.75	1.92	1.92	1.75	1.58	1.42	1.25	1.08	.92
.75	.58	.42	.25	.08	.04				

305

INPUT DATA FOR GUTTERS AND PIPES

INT NUM	GUT NUM	GUT CONN	WIDTH (FT)	LENGTH (FT)	SLOPE (FT/FT)	SIDE SLOPES LEFT	SIDE SLOPES RIGHT	MANNING N	DEPTH (FT)	V FULL (FPS)	Q FULL (CFS)
1	61	62	1.00	100.	.04100	1.0	1.0	.025	.0	.0	0.

TOTAL NUMBER OF GUTTERS/PIPES, 1

ASTERISK (*) DENOTES CIRCULAR PIPE, DIAMETER=,WIDTH,

INT NUM	SUBAREA NUMBER	OUTLIN NUMBER	WIDTH (FT)	AREA (AC)	PERCENT IMPERV.	SLOPE (FT/FT)	RESISTANCE IMPERV.	FACTOR PERV.	SURFACE STORAGE(IN) IMPERV.	PERV.	INFILTRATION RATE(IN/HR) MAXIMUM	MINIMUM	DECAY RATE	MAX GAGE INF.	NO
1	1	1	500.	11.48	0.	.001	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
2	2	2	500.	11.48	25.	.001	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
3	3	3	500.	11.48	50.	.001	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
4	4	4	500.	11.48	75.	.001	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
5	5	5	500.	11.48	100.	.001	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
6	6	6	500.	11.48	0.	.100	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
7	7	7	500.	11.48	25.	.100	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
8	8	8	500.	11.48	50.	.100	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
9	9	9	500.	11.48	75.	.100	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
10	10	10	500.	11.48	100.	.100	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
11	11	11	500.	11.48	0.	.001	.025	.250	.000	.00	.50	.50	.00100	12.00	1
12	12	12	500.	11.48	25.	.001	.025	.250	.000	.00	.50	.50	.00100	12.00	1
13	13	13	500.	11.48	50.	.001	.025	.250	.000	.00	.50	.50	.00100	12.00	1
14	14	14	500.	11.48	75.	.001	.025	.250	.000	.00	.50	.50	.00100	12.00	1
15	15	15	500.	11.48	100.	.001	.025	.250	.000	.00	.50	.50	.00100	12.00	1
16	16	16	500.	11.48	0.	.100	.025	.250	.000	.00	.50	.50	.00100	12.00	1
17	17	17	500.	11.48	25.	.100	.025	.250	.000	.00	.50	.50	.00100	12.00	1
18	18	18	500.	11.48	50.	.100	.025	.250	.000	.00	.50	.50	.00100	12.00	1
19	19	19	500.	11.48	75.	.100	.025	.250	.000	.00	.50	.50	.00100	12.00	1
20	20	20	500.	11.48	100.	.100	.025	.250	.000	.00	.50	.50	.00100	12.00	1
21	21	21	1000.	11.48	0.	.001	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
22	22	22	1000.	11.48	25.	.001	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
23	23	23	1000.	11.48	50.	.001	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
24	24	24	1000.	11.48	75.	.001	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
25	25	25	1000.	11.48	100.	.001	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
26	26	26	1000.	11.48	0.	.100	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
27	27	27	1000.	11.48	25.	.100	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
28	28	28	1000.	11.48	50.	.100	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
29	29	29	1000.	11.48	75.	.100	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
30	30	30	1000.	11.48	100.	.100	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
31	31	31	1000.	11.48	0.	.001	.025	.250	.300	.00	.50	.50	.00100	12.00	1
32	32	32	1000.	11.48	25.	.001	.025	.250	.000	.00	.50	.50	.00100	12.00	1
33	33	33	1000.	11.48	50.	.001	.025	.250	.000	.00	.50	.50	.00100	12.00	1
34	34	34	1000.	11.48	75.	.001	.025	.250	.000	.00	.50	.50	.00100	12.00	1
35	35	35	1000.	11.48	100.	.001	.025	.250	.000	.00	.50	.50	.00100	12.00	1
36	36	36	1000.	11.48	0.	.100	.025	.250	.000	.00	.50	.50	.00100	12.00	1
37	37	37	1000.	11.48	25.	.100	.025	.250	.000	.00	.50	.50	.00100	12.00	1
38	38	38	1000.	11.48	50.	.100	.025	.250	.000	.00	.50	.50	.00100	12.00	1
39	39	39	1000.	11.48	75.	.100	.025	.250	.000	.00	.50	.50	.00100	12.00	1
40	40	40	1000.	11.48	100.	.100	.025	.250	.000	.00	.50	.50	.00100	12.00	1
41	41	41	158.	1.15	0.	.001	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
42	42	42	158.	1.15	25.	.001	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
43	43	43	158.	1.15	50.	.001	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
44	44	44	158.	1.15	75.	.001	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
45	45	45	158.	1.15	100.	.001	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
46	46	46	158.	1.15	0.	.100	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
47	47	47	158.	1.15	25.	.100	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
48	48	48	158.	1.15	50.	.100	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
49	49	49	158.	1.15	75.	.100	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
50	50	50	158.	1.15	100.	.100	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
51	51	51	158.	1.15	0.	.001	.025	.250	.000	.00	.50	.50	.00100	12.00	1
52	52	52	158.	1.15	25.	.001	.025	.250	.000	.00	.50	.50	.00100	12.00	1
53	53	53	158.	1.15	50.	.001	.025	.250	.000	.00	.50	.50	.00100	12.00	1
54	54	54	158.	1.15	75.	.001	.025	.250	.000	.00	.50	.50	.00100	12.00	1
55	55	55	158.	1.15	100.	.001	.025	.250	.000	.00	.50	.50	.00100	12.00	1
56	56	56	158.	1.15	0.	.100	.025	.250	.000	.00	.50	.50	.00100	12.00	1
57	57	57	158.	1.15	25.	.100	.025	.250	.000	.00	.50	.50	.00100	12.00	1
58	58	58	158.	1.15	50.	.100	.025	.250	.000	.00	.50	.50	.00100	12.00	1

59	59	59	158.	1.15	75.	.100	.025	.250	.000	.00	.50	.50	.00100	12.00	1
60	60	60	158.	1.15	100.	.100	.025	.250	.000	.00	.50	.50	.00100	12.00	1
61	61	61	316.	1.15	0.	.001	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
62	62	62	316.	1.15	25.	.001	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
63	63	63	316.	1.15	50.	.001	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
64	64	64	316.	1.15	75.	.001	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
65	65	65	316.	1.15	100.	.001	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
66	66	66	316.	1.15	0.	.100	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
67	67	67	316.	1.15	25.	.100	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
68	68	68	316.	1.15	50.	.100	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
69	69	69	316.	1.15	75.	.100	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
70	71	71	316.	1.15	100.	.100	.025	.250	.050	.20	2.00	.50	.00100	12.00	1
71	71	71	316.	1.15	0.	.001	.025	.250	.000	.00	.50	.50	.00100	12.00	1
72	72	72	316.	1.15	25.	.001	.025	.250	.000	.00	.50	.50	.00100	12.00	1
73	73	73	316.	1.15	50.	.001	.025	.250	.000	.00	.50	.50	.00100	12.00	1
74	74	74	316.	1.15	75.	.001	.025	.250	.000	.00	.50	.50	.00100	12.00	1
75	75	75	316.	1.15	100.	.001	.025	.250	.000	.00	.50	.50	.00100	12.00	1
76	76	76	316.	1.15	0.	.100	.025	.250	.000	.00	.50	.50	.00100	12.00	1
77	77	77	316.	1.15	25.	.100	.025	.250	.000	.00	.50	.50	.00100	12.00	1
78	78	78	316.	1.15	50.	.100	.025	.250	.000	.00	.50	.50	.00100	12.00	1
79	79	79	316.	1.15	75.	.100	.025	.250	.000	.00	.50	.50	.00100	12.00	1
80	80	80	316.	1.15	100.	.100	.025	.250	.000	.00	.50	.50	.00100	12.00	1
81	81	81	316.	1.15	100.	.100	.025	.250	.000	.00	.50	.50	.00100	12.00	1

TOTAL NUMBER OF SUBCATCHMENTS, 81

TOTAL TRIBUTARY AREA (ACRES), 506.35

ARRANGEMENT OF SUBCATCHMENTS AND GUTTERS/PIPES

GUTTER OR PIPE	TRIBUTARY GUTTER/PIPE	TRIBUTARY SUBAREA
81		81

INLET	TRIBUTARY GUTTERS AND/OR PIPES	TRIBUTARY SUBAREAS
82	81	
1		1
2		2
3		3
4		4
5		5
6		6
7		7
8		8
9		9
10		10
11		11
12		12
13		13
14		14
15		15
16		16
17		17
18		18
19		19
20		20
21		21
22		22
23		23
24		24
25		25

HYDROGRAPHS WILL BE STORED FOR THE FOLLOWING 81 INLETS

82	1	2	3	4	5	6	7
8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23
24	25	26	27	28	29	30	31
32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47
48	49	50	51	52	53	54	55
56	57	58	59	60	61	62	63

64 65 66 67 68 69 70 71
72 73 74 75 76 77 78 79
80

.....QUALITY SIMULATION NOT INCLUDED IN THIS RUN.....

HYDROGRAPHS AND POLLUTOGRAPHS WILL BE LISTED FOR THE FOLLOWING GUTTERS OR INLETS

LOCATION										
	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37	38	39	40
	41	42	43	44	45	46	47	48	49	50
	51	52	53	54	55	56	57	58	59	60
	61	62	63	64	65	66	67	68	69	70
	71	72	73	74	75	76	77	78	79	80

HYDROGRAPHS AND POLLUTOGRAPHS WILL BE PLOTTED FOR THE FOLLOWING GUTTERS OR INLETS

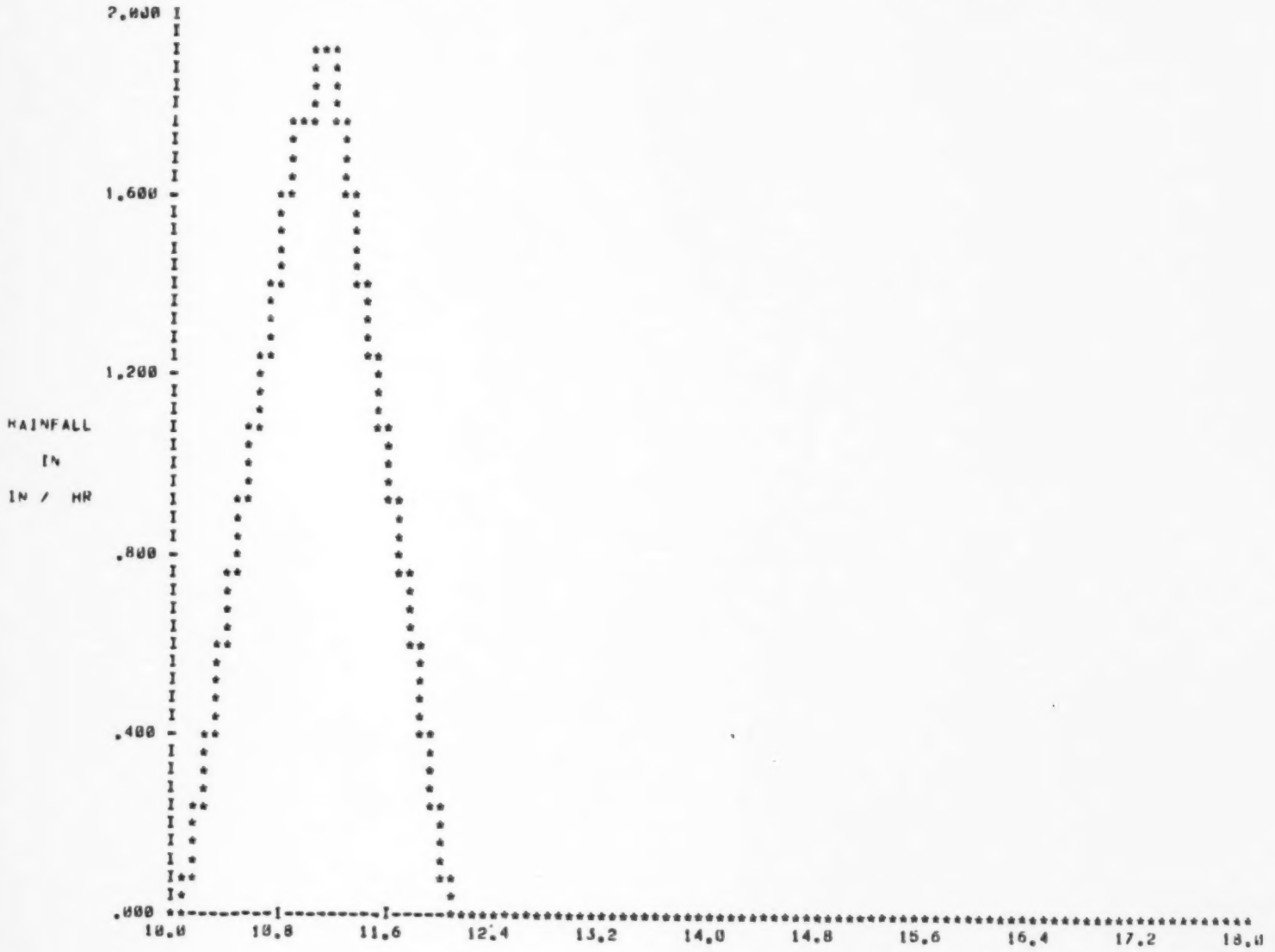
LOCATION										
	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37	38	39	40
	41	42	43	44	45	46	47	48	49	50
	51	52	53	54	55	56	57	58	59	60
	61	62	63	64	65	66	67	68	69	70
	71	72	73	74	75	76	77	78	79	80

PLOT CODES ARE
1 0 2 3 4 5 6 7 8 9 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

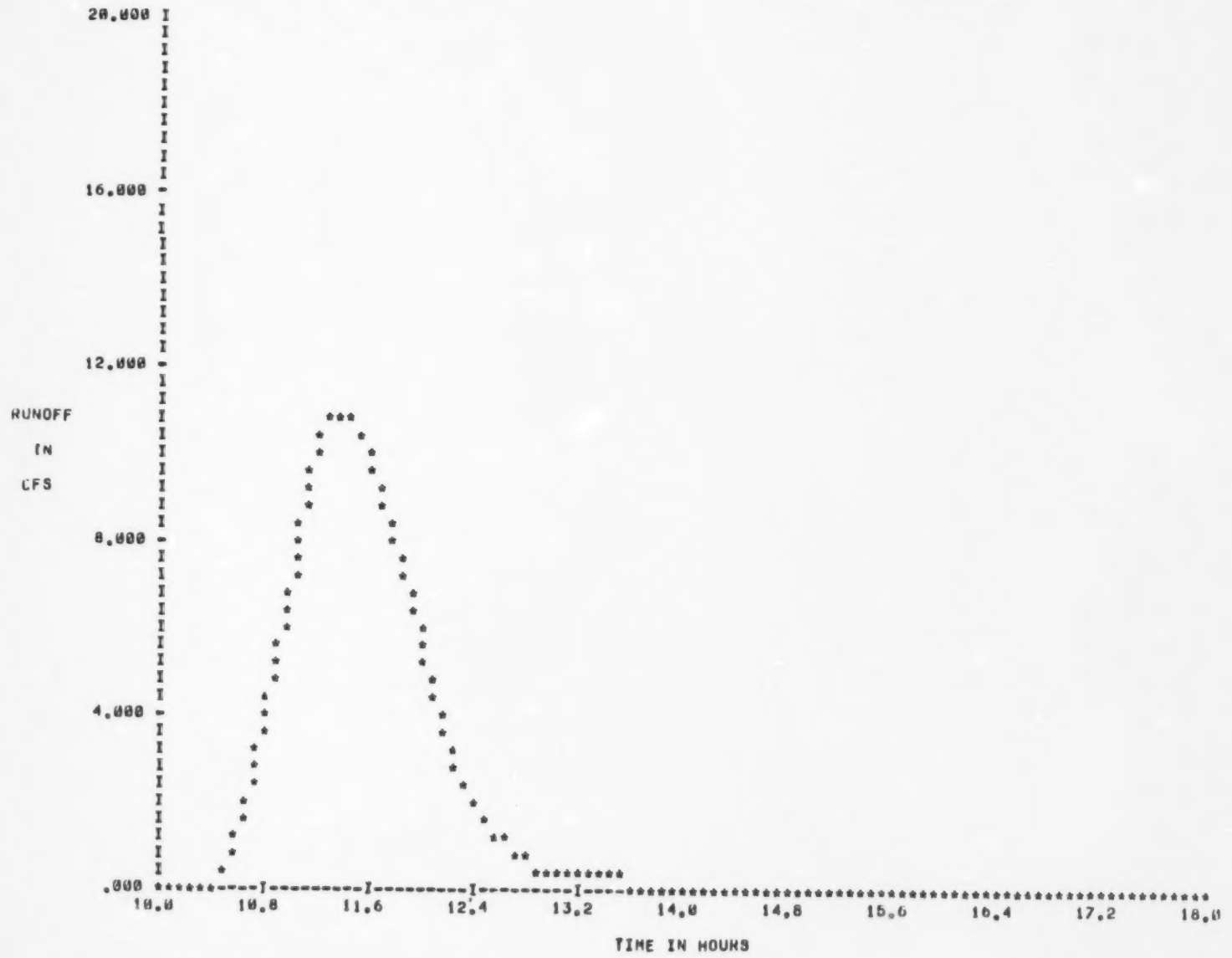
TOTAL RAINFALL (CU FT)	.367606+07
TOTAL INFILTRATION (CU FT)	.134196+07
TOTAL GUTTER FLOW AT INLET (CU FT)	.229798+07
TOTAL SURFACE STORAGE AT END OF STORM (CU FT)	.362389+05
ERROR IN CONTINUITY, PERCENTAGE OF RAINFALL,	-.00081

STORM #3 - TWO HOUR DURATION TRIANGULAR HYETOGRAPH 18 JUN 74 19:34:21 PAGE 17

RAINFALL HYETOGRAPH BASIN NO 1



FLOW GUTTER OR INLET NO 23



EPA SEWER MODEL EVALUATION
BATTELLE PACIFIC NORTHWEST LABORATORIES

SUMMARY OF FLOWS.....NO QUALITY SIMULATION....

		21	22	23	24	25	26	27	28	29	30
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	5.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	10.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	15.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	20.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	25.00	.00	.11	.12	.12	.12	.00	.71	.89	.97	1.02
10	30.00	.00	.47	.51	.53	.54	.00	1.78	2.74	3.31	3.70
10	35.00	.00	1.01	1.19	1.26	1.30	.00	2.41	4.31	5.73	6.80
10	40.00	.00	1.65	2.11	2.32	2.44	.00	2.91	5.52	7.76	9.65
10	45.00	.00	2.32	3.22	3.67	3.94	.00	3.41	6.58	9.49	12.13
10	50.00	.00	2.98	4.44	5.26	5.77	.02	3.92	7.61	11.11	14.38
10	55.00	.06	3.66	5.77	7.06	7.86	.57	4.96	9.14	13.14	16.49
11	.00	.19	4.38	7.17	9.02	10.14	1.74	6.58	11.18	15.50	18.54
11	5.00	.40	5.15	8.62	11.10	12.54	3.46	8.66	13.55	17.94	20.56
11	10.00	.69	5.85	9.93	13.01	14.78	5.45	10.62	15.46	19.57	21.81
11	15.00	1.00	6.23	10.72	14.30	16.34	7.20	11.74	15.99	19.44	21.36
11	20.00	1.31	6.30	10.95	14.84	17.07	8.48	12.09	15.48	18.12	19.78
11	25.00	1.58	6.21	10.80	14.80	17.15	9.02	11.94	14.53	16.49	17.98
11	30.00	1.80	6.01	10.39	14.34	16.72	9.15	11.37	13.29	14.75	16.13
11	35.00	1.98	5.73	9.81	13.58	15.93	8.86	10.47	11.86	12.96	14.28
11	40.00	2.09	5.39	9.10	12.60	14.87	8.26	9.34	10.31	11.17	12.44
11	45.00	2.15	4.98	8.29	11.49	13.64	7.42	8.07	8.70	9.38	10.61
11	50.00	2.14	4.52	7.42	10.26	12.30	6.43	6.71	7.07	7.61	8.80
11	55.00	2.07	4.01	6.49	8.98	10.87	5.33	5.30	5.46	5.88	7.02
12	.00	1.95	3.45	5.53	7.66	9.41	4.18	3.90	3.88	4.21	5.29
12	5.00	1.78	2.87	4.54	6.32	7.94	3.03	2.54	2.39	2.65	3.61
12	10.00	1.58	2.31	3.62	5.09	6.56	2.08	1.42	1.20	1.45	2.24
12	15.00	1.39	1.86	2.89	4.08	5.43	1.18	.68	.52	.86	1.43
12	20.00	1.21	1.52	2.33	3.32	4.56	.60	.25	.26	.56	.94
12	25.00	1.04	1.25	1.89	2.72	3.87	.21	.04	.17	.39	.67
12	30.00	.88	1.03	1.54	2.25	3.32	.00	.03	.12	.28	.50
12	35.00	.74	.84	1.26	1.88	2.87	.00	.02	.09	.21	.38
12	40.00	.62	.66	1.03	1.58	2.50	.00	.02	.07	.17	.30
12	45.00	.50	.54	.84	1.34	2.20	.00	.01	.05	.13	.24
12	50.00	.40	.43	.68	1.16	1.94	.00	.01	.04	.11	.20
12	55.00	.30	.32	.55	1.01	1.73	.00	.01	.04	.09	.16
13	.00	.22	.24	.45	.89	1.54	.00	.01	.03	.07	.14
13	5.00	.15	.17	.37	.80	1.39	.00	.01	.02	.06	.12
13	10.00	.09	.11	.32	.71	1.25	.00	.00	.02	.05	.10
13	15.00	.05	.08	.28	.64	1.13	.00	.00	.02	.05	.09
13	20.00	.01	.06	.25	.58	1.03	.00	.00	.02	.04	.08
13	25.00	.00	.05	.23	.53	.94	.00	.00	.01	.04	.07
13	30.00	.00	.05	.21	.48	.86	.00	.00	.01	.03	.06
13	35.00	.00	.04	.19	.44	.79	.00	.00	.01	.03	.05
13	40.00	.00	.04	.17	.40	.73	.00	.00	.01	.02	.05
13	45.00	.00	.03	.16	.37	.67	.00	.00	.01	.02	.04
13	50.00	.00	.03	.14	.34	.62	.00	.00	.01	.02	.04
13	55.00	.00	.03	.13	.32	.58	.00	.00	.01	.02	.03
14	.00	.00	.03	.12	.29	.54	.00	.00	.01	.02	.03
14	5.00	.00	.02	.11	.27	.50	.00	.00	.01	.01	.03
14	10.00	.00	.02	.10	.25	.47	.00	.00	.01	.01	.03

14	15.00	.00	.02	.10	.24	.44	.00	.00	.00	.01	.02
14	20.00	.00	.02	.09	.22	.41	.00	.00	.00	.01	.02
14	25.00	.00	.02	.08	.21	.38	.00	.00	.00	.01	.02
14	30.00	.00	.02	.08	.19	.36	.00	.00	.00	.01	.02
14	35.00	.00	.02	.07	.18	.34	.00	.00	.00	.01	.02
14	40.00	.00	.01	.07	.17	.32	.00	.00	.00	.01	.02
14	45.00	.00	.01	.06	.16	.30	.00	.00	.00	.01	.02
14	50.00	.00	.01	.06	.15	.29	.00	.00	.00	.01	.01
14	55.00	.00	.01	.06	.14	.27	.00	.00	.00	.01	.01
15	.00	.00	.01	.05	.14	.26	.00	.00	.00	.01	.01
15	5.00	.00	.01	.05	.13	.24	.00	.00	.00	.01	.01
15	10.00	.00	.01	.05	.12	.23	.00	.00	.00	.01	.01
15	15.00	.00	.01	.05	.12	.22	.00	.00	.00	.01	.01
15	20.00	.00	.01	.04	.11	.21	.00	.00	.00	.01	.01
15	25.00	.00	.01	.04	.10	.20	.00	.00	.00	.00	.01
15	30.00	.00	.01	.04	.10	.19	.00	.00	.00	.00	.01
15	35.00	.00	.01	.04	.09	.18	.00	.00	.00	.00	.01
15	40.00	.00	.01	.04	.09	.17	.00	.00	.00	.00	.01
15	45.00	.00	.01	.03	.09	.16	.00	.00	.00	.00	.01
15	50.00	.00	.01	.03	.08	.16	.00	.00	.00	.00	.01
15	55.00	.00	.01	.03	.08	.15	.00	.00	.00	.00	.01
16	.00	.00	.01	.03	.08	.14	.00	.00	.00	.00	.01
16	5.00	.00	.01	.03	.07	.14	.00	.00	.00	.00	.01
16	10.00	.00	.01	.03	.07	.13	.00	.00	.00	.00	.01
16	15.00	.00	.01	.03	.07	.13	.00	.00	.00	.00	.01
16	20.00	.00	.00	.02	.06	.12	.00	.00	.00	.00	.01
16	25.00	.00	.00	.02	.06	.12	.00	.00	.00	.00	.01
16	30.00	.00	.00	.02	.06	.11	.00	.00	.00	.00	.00
16	35.00	.00	.00	.02	.06	.11	.00	.00	.00	.00	.00
16	40.00	.00	.00	.02	.05	.11	.00	.00	.00	.00	.00
16	45.00	.00	.00	.02	.05	.10	.00	.00	.00	.00	.00
16	50.00	.00	.00	.02	.05	.10	.00	.00	.00	.00	.00
16	55.00	.00	.00	.02	.05	.09	.00	.00	.00	.00	.00
17	.00	.00	.00	.02	.05	.09	.00	.00	.00	.00	.00
17	5.00	.00	.00	.02	.05	.09	.00	.00	.00	.00	.00
17	10.00	.00	.00	.02	.04	.08	.00	.00	.00	.00	.00
17	15.00	.00	.00	.02	.04	.08	.00	.00	.00	.00	.00
17	20.00	.00	.00	.02	.04	.08	.00	.00	.00	.00	.00
17	25.00	.00	.00	.02	.04	.08	.00	.00	.00	.00	.00
17	30.00	.00	.00	.01	.04	.07	.00	.00	.00	.00	.00
17	35.00	.00	.00	.01	.04	.07	.00	.00	.00	.00	.00
17	40.00	.00	.00	.01	.04	.07	.00	.00	.00	.00	.00
17	45.00	.00	.00	.01	.03	.07	.00	.00	.00	.00	.00
17	50.00	.00	.00	.01	.03	.07	.00	.00	.00	.00	.00
17	55.00	.00	.00	.01	.03	.06	.00	.00	.00	.00	.00

```
* UPD DATA,DATA                                                    1 AUG 74   00:00:59.860
DATE, TIME, LEVEL OF OUTPUT ELEMENT:  1 AUG 74  00:52(00)
000001          EPA SEWER MODEL EVALUATION
000002          BATTELLE PACIFIC NORTHWEST LABORATORIES
000003          7200    3   10   10    0   10    0    1    1    6    0          0    8
000004                    210       210       290       410       410       490       610       810
000005                    690       810       810       860      1010      1010      1060      1210
000006                   1210      1260
000007                    210       210       290       410       410       490       610       810
000008                    690       810       810       860      1010      1010      1060      1210
000009                   1210      1260
000010               0.0  0.0
000011                 21  210  220    1        2,0    2.0 500.   0.0   0.0  0.01   0.0   0.0
000012                 22  220  230    1        2,0    2.01000.   0.0   0.0  0.01   0.0   0.0
000013                 23  230  240    1        2,0    2.01500.   0.0   0.0  0.01   0.0   0.0
000014                 24  240  250    1        2,0    2.02000.   0.0   0.0  0.01   0.0   0.0
000015                 25  250  260    1        2,0    2.02000.   0.0   0.0  0.01   0.0   0.0
000016                 26  260  270    1        2,0    2.01500.   0.0   0.0  0.01   0.0   0.0
000017                 27  270  280    1        2,0    2.01000.   0.0   0.0  0.01   0.0   0.0
000018                 28  280  290    1        2,0    2.0 500.   0.0   0.0  0.01   0.0   0.0
000019                 41  410  420    1        2,0    2.0 500.   0.0   0.0  0.01   0.0   0.0
000020                 42  420  430    1        2,0    2.01000.   0.0   0.0  0.01   0.0   0.0
000021                 43  430  440    1        2,0    2.01500.   0.0   0.0  0.01   0.0   0.0
000022                 44  440  450    1        2,0    2.02000.   0.0   0.0  0.01   0.0   0.0
000023                 45  450  460    1        2,0    2.02000.   0.0   0.0  0.01   0.0   0.0
000024                 46  460  470    1        2,0    2.01500.   0.0   0.0  0.01   0.0   0.0
000025                 47  470  480    1        2,0    2.01000.   0.0   0.0  0.01   0.0   0.0
000026                 48  480  490    1        2,0    2.0 500.   0.0   0.0  0.01   0.0   0.0
000027                 61  610  620    1        2,0    2.0 500.   0.0   0.0  0.01   0.0   0.0
000028                 62  620  630    1        2,0    2.01000.   0.0   0.0  0.01   0.0   0.0
000029                 63  630  640    1        2,0    2.01500.   0.0   0.0  0.01   0.0   0.0
000030                 64  640  650    1        2,0    2.02000.   0.0   0.0  0.01   0.0   0.0
000031                 65  650  660    1        2,0    2.02000.   0.0   0.0  0.01   0.0   0.0
000032                 66  660  670    1        2,0    2.01500.   0.0   0.0  0.01   0.0   0.0
000033                 67  670  680    1        2,0    2.01000.   0.0   0.0  0.01   0.0   0.0
000034                 68  680  690    1        2,0    2.0 500.   0.0   0.0  0.01   0.0   0.0
000035                 81  810  820    1      12,0   12.01500.   0.0   0.0  0.01   0.0   0.0
000036                 82  820  830    1      12,0   12.02000.   0.0   0.0  0.01   0.0   0.0
000037                 83  830  840    1      12,0   12.03000.   0.0   0.0  0.01   0.0   0.0
000038                 84  840  850    1      12,0   12.02000.   0.0   0.0  0.01   0.0   0.0
000039                 85  850  860    1      12,0   12.01500.   0.0   0.0  0.01   0.0   0.0
000040                101 1010 1020    1      12,0   12.01500.   0.0   0.0  0.01   0.0   0.0
000041                102 1020 1030    1      12,0   12.02000.   0.0   0.0  0.01   0.0   0.0
000042                103 1030 1040    1      12,0   12.03000.   0.0   0.0  0.01   0.0   0.0
000043                104 1040 1050    1      12,0   12.02000.   0.0   0.0  0.01   0.0   0.0
000044                105 1050 1060    1      12,0   12.01500.   0.0   0.0  0.01   0.0   0.0
000045                121 1210 1220    1      12,0   12.01500.   0.0   0.0  0.01   0.0   0.0
000046                122 1220 1230    1      12,0   12.02000.   0.0   0.0  0.01   0.0   0.0
000047                123 1230 1240    1      12,0   12.03000.   0.0   0.0  0.01   0.0   0.0
000048                124 1240 1250    1      12,0   12.02000.   0.0   0.0  0.01   0.0   0.0
000049                125 1250 1260    1      12,0   12.01500.   0.0   0.0  0.01   0.0   0.0
000050                 29  290  292    2       2,0   100, 500.   0.0   0.0  0.01   0.0   0.0
000051                 30  291  293    2       2,0   100, 500.   0.0   0.0  0.01   0.0   0.0
000052                 49  490  492    2       2,0   100, 500.   0.0   0.0  0.01   0.0   0.0
000053                 50  491  493    2       2,0   100, 500.   0.0   0.0  0.01   0.0   0.0
000054                 69  690  692    2       2,0   100, 500.   0.0   0.0  0.01   0.0   0.0
000055                 70  691  693    2       2,0   100, 500.   0.0   0.0  0.01   0.0   0.0
000056                 86  860  862    2      12,0   200,1500.   0.0   0.0  0.01   0.0   0.0
000057                 87  861  863    2      12,0   200,1500.   0.0   0.0  0.01   0.0   0.0
000058                106 1060 1062    2      12,0   200,1500.   0.0   0.0  0.01   0.0   0.0
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000059      107 1061 1063    2      12.0 200.1500.  0.0  0.0 0.01  0.0  0.0
00005A      126 1260 1262    2      12.0 200.1500.  0.0  0.0 0.01  0.0  0.0
00005B      127 1261 1263    2      12.0 200.1500.  0.0  0.0 0.01  0.0  0.0
00005C    99999
00005D      21R   1012.00   1000.00        0.0
00005E      22R   1010.75    999.75        0.0
00005F      23R   1010.25    999.25        0.0
000060      24R   1009.50    998.50        0.0
000061      25R   1008.50    997.50        0.0
000062      26R   1007.50    996.50        0.0
000063      27R   1006.75    995.75        0.0
000064      28R   1006.25    995.25        0.0
000065      29R   1006.00    995.00        0.0
000066      291   1006.00    993.00        0.0
000067      292   1006.00    970.00        0.0
000068      293   1006.00    968.00        0.0
000069      41R   1012.00   1000.00        0.0
00006A      42R   1008.50    997.50        0.0
00006B      43R   1003.50    992.50        0.0
00006C      44R    998.00    985.00        0.0
00006D      45R    986.00    975.00        0.0
00006E      46R    976.00    965.00        0.0
00006F      47R    968.50    957.50        0.0
000070      48R    963.50    952.50        0.0
000071      49R    961.00    950.00        0.0
000072      491    961.00    948.00        0.0
000073      492    961.00    925.00        0.0
000074      493    961.00    923.00        0.0
000075      61R   1012.00   1000.00        0.0
000076      62R    986.00    975.00        0.0
000077      63R    936.00    925.00        0.0
000078      64R    861.00    850.00        0.0
000079      65R    761.00    750.00        0.0
00007A      66R    661.00    650.00        0.0
00007B      67R    586.00    575.00        0.0
00007C      68R    536.00    525.00        0.0
00007D      69R    511.00    500.00        0.0
00007E      691    511.00    498.00        0.0
00007F      692    511.00    450.00        0.0
000080      693    511.00    448.00        0.0
000081      81R   1032.00   1000.00        0.0
000082      82R   1025.25    999.25        0.0
000083      83R   1024.25    998.25        0.0
000084      84R   1022.75    996.75        0.0
000085      85R   1021.75    995.75        0.0
000086      86R   1021.00    995.00        0.0
000087      861   1021.00    983.00        0.0
000088      862   1021.00    920.00        0.0
000089      863   1021.00    908.00        0.0
00008A     101R   1032.00   1000.00        0.0
00008B     102R   1018.50    992.50        0.0
00008C     103R   1008.50    982.50        0.0
00008D     104R    993.50    967.50        0.0
00008E     105R    983.50    957.50        0.0
00008F     106R    976.00    950.00        0.0
000090     1061    976.00    938.00        0.0
000091     1062    976.00    875.00        0.0
000092     1063    976.00    863.00        0.0
000093     121R   1032.00   1000.00        0.0
000094     122R    951.00    925.00        0.0
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000119          1230    851.00    825.00      0.0
000120          1240    701.00    675.00      0.0
000121          1250    601.00    575.00      0.0
000122          1260    526.00    500.00      0.0
000123          1261    526.00    488.00      0.0
000124          1262    526.00    350.00      0.0
000125          1263    526.00    338.00      0.0
000126         99999
000127           211   1012.00   1012.00   1000.00      0.0   12.5664
000128           411   1012.00   1012.00   1000.00      0.0   12.5664
000129           611   1012.00   1012.00   1000.00      0.0   12.5664
000130           811   1032.00   1032.00   1000.00      0.0  452.3893
000131          1011   1032.00   1032.00   1000.00      0.0  452.3893
000132          1211   1032.00   1032.00   1000.00      0.0  452.3893
000133         99999
000134           211  2103.142 0.60    1001.00
000135           290  291.7854 0.60     995.50
000136           411  4103.142 0.60    1001.00
000137           490  491.7854 0.60     950.50
000138           611  6103.142 0.60    1001.00
000139           690  691.7854 0.60     500.50
000140           811  810113.1 0.60    1006.00
000141           860  86128.27 0.60     998.00
000142          1011 1010113.1 0.60    1006.00
000143          1060 106128.27 0.60     953.00
000144          1211 1210113.1 0.60    1006.00
000145          1260 126128.27 0.60     503.00
000146         99999
000147           290   29    1 1.00 2,001,571 3,00.5287
000148           490   49    1 1.00 2,001,571 3,00.5287
000149           690   69    1 1.00 2,001,571 3,00.5287
000150           860   86    1 6.0012,009,425 3,00.5287
000151          1060  106    1 6.0012,009,425 3,00.5287
000152          1260  126    1 6.0012,009,425 3,00.5287
000153         99999
000154         99999
000155           292
000156           293
000157           492
000158           493
000159           692
000160           693
000161           862
000162           863
000163          1062
000164          1063
000165          1262
000166          1263
000167         99999
000168         99999
000169             1
000170           211  411  611  811 1011 1211
000171            10.00      0.59      1.88      5.94     78.54    223.87    785.42
000172            11.00      5.94     10.77     59.35    785.41   2238.73   7854.19
000173            12.00      0.59      1.88      5.94     78.54    223.87    785.42
000174            19.00      0.59      1.88      5.94     78.54    223.87    785.42
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* UPD DATA,DATA                                                                  10 AUG 74   00:00:10.380
DATE, TIME, LEVEL OF OUTPUT ELEMENT: 10 AUG 74  17:18(00)
000001          EPA SEWER MODEL EVALUATION
000002          BATTELLE PACIFIC NORTHWEST LABORATORIES
000003           7190   3.  10.   18    1   72    0              1              18
000004                 210       250       290       410       450       490       610       650
000005                 690       810       830       860      1010      1030      1060      1210
000006                1230      1260
000007           1
000008                 210       250       290       410       450       490       610       650
000009                 690       810       830       860      1010      1030      1060      1210
000010                1230      1260
000011           1
000012                   4         6         6
000013                 211       411       611       811      1011      1211
000014               10.00 0.0036833
000015               10.00 0.0117368
000016               10.00 0.0370834
000017               10.00 0.4403812
000018               10.00  1.392626
000019               10.00 4.4039308
000020               11.00 0.0370834
000021               11.00 0.1171011
000022               11.00  0.370522
000023               11.00 4.4038746
000024               11.00 13.926447
000025               11.00 44.039308
000026               12.00 0.0036833
000027               12.00 0.0117368
000028               12.00 0.0370834
000029               12.00 0.4403812
000030               12.00  1.392626
000031               12.00 4.4039308
000032               19.00 0.0036833
000033               19.00 0.0117368
000034               19.00 0.0370834
000035               19.00 0.4403812
000036               19.00  1.392626
000037               19.00 4.4039308
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# UPD DATA,DATA                                                          13 AUG 74   03:09:17.934
DATE, TIME, LEVEL OF OUTPUT ELEMENT: 13 AUG 74  17:23(00)
000001          EPA SEWER MODEL EVALUATION
000002          BATTELLE PACIFIC NORTHWEST LABORATORIES
000003           7199   3.  10.   10    1   72    0            1           10
000004                 210       250       290       410       450       490       610       650
000005                 690       810       830       860      1010      1030      1060      1210
000006                1230      1260
000007           11
000008                 210       250       290       410       450       490       610       650
000009                 690       810       830       860      1010      1030      1060      1210
000010                1230      1260
000011           11
000012                   4         6         6
000013                 211       411       611       811      1011      1211
000014               10.00 0.0036833
000015               10.00 0.0117368
000016               10.00 0.0370834
000017               10.00 0.4403812
000018               10.00  1.392626
000019               10.00 4.4039308
000020               11.00           0.0370834
000021               11.00           0.1171811
000022               11.00            0.370522
000023               11.00           4.4030746
000024               11.00           13.926447
000025               11.00           44.039308
000026               12.00 0.0036833
000027               12.00 0.0117368
000028               12.00 0.0370834
000029               12.00 0.4403812
000030               12.00  1.392626
000031               12.00 4.4039308
000032               19.00 0.0036833
000033               19.00 0.0117368
000034               19.00 0.0370834
000035               19.00 0.4403812
000036               19.00  1.392626
000037               19.00 4.4039308
```

EPA SEWER MODEL EVALUATION
BATTELLE PACIFIC NORTHWEST LABORATORIES

WATER RESOURCES ENGINEERS, INC.
WALNUT CREEK, CALIFORNIA
STORM DRAINAGE MODEL

INTEGRATION CYCLES 7200

LENGTH OF INTEGRATION STEP IS 3. SECONDS

PRINTING STARTS IN CYCLE 1 AND PRINTS AT INTERVALS OF 72 CYCLES

INITIAL TIME 10.00 HOURS

PRINTED OUTPUT AT THE FOLLOWING 18 JUNCTIONS

211	218	298	411	418	498	611	618	698
811	818	868	1011	1018	1068	1211	1218	1268

WATER SURFACE ELEVATIONS WILL BE PLOTTED FOR THE FOLLOWING 18 JUNCTIONS

211	218	298	411	418	498	611	618	698
811	818	868	1011	1018	1068	1211	1218	1268

	CONDUIT NUMBER	LENGTH (FT)	CLASS	AREA (SQ FT)	MANNING COEF.	MAX WIDTH (FT)	DEPTH (FT)	JUNCTIONS AT ENDS		TRAPEZOID SIDE SLOPE			
1	21	500.	1	3.14	.010	2.00	2.00	210	220	.00	.00	.00	.00
2	22	1000.	1	3.14	.010	2.00	2.00	220	230	.00	.00	.00	.00
3	23	1500.	1	3.14	.010	2.00	2.00	230	240	.00	.00	.00	.00
4	24	2000.	1	3.14	.010	2.00	2.00	240	250	.00	.00	.00	.00
5	25	2000.	1	3.14	.010	2.00	2.00	250	260	.00	.00	.00	.00
6	26	1500.	1	3.14	.010	2.00	2.00	260	270	.00	.00	.00	.00
7	27	1000.	1	3.14	.010	2.00	2.00	270	280	.00	.00	.00	.00
8	28	500.	1	3.14	.010	2.00	2.00	280	290	.00	.00	.00	.00
9	41	500.	1	3.14	.010	2.00	2.00	410	420	.00	.00	.00	.00
10	42	1000.	1	3.14	.010	2.00	2.00	420	430	.00	.00	.00	.00
11	43	1500.	1	3.14	.010	2.00	2.00	430	440	.00	.00	.00	.00
12	44	2000.	1	3.14	.010	2.00	2.00	440	450	.00	.00	.00	.00
13	45	2000.	1	3.14	.010	2.00	2.00	450	460	.00	.00	.00	.00
14	46	1500.	1	3.14	.010	2.00	2.00	460	470	.00	.00	.00	.00
15	47	1000.	1	3.14	.010	2.00	2.00	470	480	.00	.00	.00	.00
16	48	500.	1	3.14	.010	2.00	2.00	480	490	.00	.00	.00	.00
17	61	500.	1	3.14	.010	2.00	2.00	610	620	.00	.00	.00	.00
18	62	1000.	1	3.14	.010	2.00	2.00	620	630	.00	.00	.00	.00
19	63	1500.	1	3.14	.010	2.00	2.00	630	640	.00	.00	.00	.00
20	64	2000.	1	3.14	.010	2.00	2.00	640	650	.00	.00	.00	.00
21	65	2000.	1	3.14	.010	2.00	2.00	650	660	.00	.00	.00	.00
22	66	1500.	1	3.14	.010	2.00	2.00	660	670	.00	.00	.00	.00
23	67	1000.	1	3.14	.010	2.00	2.00	670	680	.00	.00	.00	.00
24	68	500.	1	3.14	.010	2.00	2.00	680	690	.00	.00	.00	.00
25	81	1500.	1	113.10	.010	12.00	12.00	810	820	.00	.00	.00	.00
26	82	2000.	1	113.10	.010	12.00	12.00	820	830	.00	.00	.00	.00
27	83	3000.	1	113.10	.010	12.00	12.00	830	840	.00	.00	.00	.00
28	84	2000.	1	113.10	.010	12.00	12.00	840	850	.00	.00	.00	.00
29	85	1500.	1	113.10	.010	12.00	12.00	850	860	.00	.00	.00	.00
30	101	1500.	1	113.10	.010	12.00	12.00	1010	1020	.00	.00	.00	.00
31	102	2000.	1	113.10	.010	12.00	12.00	1020	1030	.00	.00	.00	.00
32	103	3000.	1	113.10	.010	12.00	12.00	1030	1040	.00	.00	.00	.00
33	104	2000.	1	113.10	.010	12.00	12.00	1040	1050	.00	.00	.00	.00
34	105	1500.	1	113.10	.010	12.00	12.00	1050	1060	.00	.00	.00	.00
35	121	1500.	1	113.10	.010	12.00	12.00	1210	1220	.00	.00	.00	.00
36	122	2000.	1	113.10	.010	12.00	12.00	1220	1230	.00	.00	.00	.00
37	123	3000.	1	113.10	.010	12.00	12.00	1230	1240	.00	.00	.00	.00
38	124	2000.	1	113.10	.010	12.00	12.00	1240	1250	.00	.00	.00	.00
39	125	1500.	1	113.10	.010	12.00	12.00	1250	1260	.00	.00	.00	.00
40	29	500.	2	200.00	.010	100.00	2.00	290	292	.00	.00	.00	.00
41	38	500.	2	200.00	.010	100.00	2.00	291	293	.00	.00	.00	.00
42	49	500.	2	200.00	.010	100.00	2.00	490	492	.00	.00	.00	.00
43	58	500.	2	200.00	.010	100.00	2.00	491	493	.00	.00	.00	.00
44	69	500.	2	200.00	.010	100.00	2.00	690	692	.00	.00	.00	.00
45	78	500.	2	200.00	.010	100.00	2.00	691	693	.00	.00	.00	.00
46	86	1500.	2	2400.00	.010	200.00	12.00	860	862	.00	.00	.00	.00
47	87	1500.	2	2400.00	.010	200.00	12.00	861	863	.00	.00	.00	.00
48	106	1500.	2	2400.00	.010	200.00	12.00	1060	1062	.00	.00	.00	.00
49	107	1500.	2	2400.00	.010	200.00	12.00	1061	1063	.00	.00	.00	.00
50	126	1500.	2	2400.00	.010	200.00	12.00	1260	1262	.00	.00	.00	.00
51	127	1500.	2	2400.00	.010	200.00	12.00	1261	1263	.00	.00	.00	.00

	JUNCTION NUMBER	GROUND ELEV.	INVERT ELEV.	QINST (CFS)	CONNECTING CONDUITS	
1	21A	1012.00	1000.00	.000	21	
2	22A	1010.75	999.75	.000	21	22
3	23A	1010.25	999.25	.000	22	23
4	24A	1009.50	998.50	.000	23	24
5	25A	1008.50	997.50	.000	24	25
6	26A	1007.50	996.50	.000	25	26
7	27A	1006.75	995.75	.000	26	27
8	28A	1006.25	995.25	.000	27	28
9	29A	1006.00	995.00	.000	28	29
10	291	1006.00	993.00	.000	38	
11	292	1006.00	978.00	.000	29	
12	293	1006.00	968.00	.000	38	
13	41A	1012.00	1000.00	.000	41	
14	42A	1008.50	997.50	.000	41	42
15	43A	1003.50	992.50	.000	42	43
16	44A	996.00	985.00	.000	43	44
17	45A	986.00	975.00	.000	44	45
18	46A	976.00	965.00	.000	45	46
19	47A	968.50	957.50	.000	46	47
20	48A	963.50	952.50	.000	47	48
21	49A	961.00	950.00	.000	48	49
22	491	961.00	948.00	.000	58	
23	492	961.00	925.00	.000	49	
24	493	961.00	923.00	.000	58	
25	61A	1012.00	1000.00	.000	61	
26	62A	986.00	975.00	.000	61	62
27	63A	936.00	925.00	.000	62	63
28	64A	861.00	850.00	.000	63	64
29	65A	761.00	750.00	.000	64	65
30	66A	661.00	650.00	.000	65	66
31	67A	586.00	575.00	.000	66	67
32	68A	536.00	525.00	.000	67	68
33	69A	511.00	500.00	.000	68	69
34	691	511.00	498.00	.000	78	
35	692	511.00	458.00	.000	69	
36	693	511.00	448.00	.000	78	
37	81A	1032.00	1000.00	.000	81	
38	82A	1025.25	999.25	.000	81	82
39	83A	1024.25	998.25	.000	82	83
40	84A	1022.75	996.75	.000	83	84
41	85A	1021.75	995.75	.000	84	85
42	86A	1021.00	995.00	.000	85	86
43	861	1021.00	983.00	.000	87	
44	862	1021.00	928.00	.000	86	
45	863	1021.00	908.00	.000	87	
46	181A	1032.00	1000.00	.000	181	
47	182A	1018.50	992.50	.000	181	182
48	183A	1008.50	982.50	.000	182	183
49	184A	993.50	967.50	.000	183	184
50	185A	983.50	957.50	.000	184	185
51	186A	976.00	950.00	.000	185	186
52	1861	976.00	938.00	.000	187	
53	1862	976.00	875.00	.000	186	
54	1863	976.00	863.00	.000	187	
55	121A	1032.00	1000.00	.000	121	
56	122A	951.00	925.00	.000	121	122
57	123A	851.00	825.00	.000	122	123

58	124A	701.00	675.00	.000	123	124
59	125A	601.00	575.00	.000	124	125
60	126A	526.00	500.00	.000	125	126
61	1261	526.00	488.00	.000	127	
62	1262	526.00	350.00	.000	126	
63	1263	526.00	338.00	.000	127	

THE TOTAL DRY WEATHER FLOW IS .000 CFS

STORAGE JUNCTION DATA

	JUNCTION NUMBER	GROUND ELEV.	CROWN ELEV.	INVERT ELEV.	QINST (CFS)	VOLUME (CU.FT./FT.)
1	211	1012.00	1012.00	1000.00	.000	12.57
2	411	1012.00	1012.00	1000.00	.000	12.57
3	611	1012.00	1012.00	1000.00	.000	12.57
4	811	1032.00	1032.00	1000.00	.000	452.39
5	1011	1032.00	1032.00	1000.00	.000	452.39
6	1211	1032.00	1032.00	1000.00	.000	452.39

THE REVISED DRY WEATHER FLOW IS .000 CFS

ORIFICE DATA

ORIFICE NUMBER	NODES CONNECTED		AREA (SQ. FT.)	DISCHARGE COEFFICIENT	C/L ELEV. (FT.)
1	211	210	3.142	.600	1001.00
2	290	291	.785	.600	995.50
3	411	410	3.142	.600	1001.00
4	490	491	.785	.600	950.50
5	611	610	3.142	.600	1001.00
6	690	691	.785	.600	500.50
7	811	810	113.100	.600	1006.00
8	860	861	28.270	.600	998.00
9	1011	1010	113.100	.600	1006.00
10	1060	1061	28.270	.600	953.00
11	1211	1210	113.100	.600	1006.00
12	1260	1261	28.270	.600	503.00

WEIR DATA

WEIR NUMBER	DISCHARGING JUNCTION	RECEIVING CONDUIT	WEIR TYPE	CREST (FT.)	TOP (FT.)	LENGTH (FT.)	DISCHARGE COEFFICIENT	SURCHARGE COEFFICIENT
1	290	29	1	1.00	2.00	1.57	3.000	.520
2	490	49	1	1.00	2.00	1.57	3.000	.520
3	690	69	1	1.00	2.00	1.57	3.000	.520
4	860	86	1	6.00	12.00	9.42	3.000	.520
5	1060	106	1	6.00	12.00	9.42	3.000	.520
6	1260	126	1	6.00	12.00	9.42	3.000	.520

TOTAL NUMBER OF NODES AFTER CONVERSION OF WEIR DATA = 75

FREE OUTFALL JUNCTIONS

292	293	492	493	692	693	862	863	1862	1863
1262	1263								

INTERNAL CONNECTIVITY INFORMATION

CONDUIT	JUNCTION	JUNCTION
52	211	210
53	290	291
54	411	410
55	490	491
56	611	610
57	690	691
58	811	810
59	860	861
60	1811	1810
61	1060	1861
62	1211	1210
63	1260	1261
64	290	70
65	490	71
66	690	72
67	860	73
68	1060	74
69	1260	75
70	292	0
71	293	0
72	492	0
73	493	0
74	692	0
75	693	0
76	862	0
77	863	0
78	1862	0
79	1863	0
80	1262	0
81	1263	0

	JUNCTION NUMBER	GROUND ELEV.	INVERT ELEV.	QINST (CFS)	CONNECTING CONDUITS
64	211	1012.00	1000.00	.000	52
65	411	1012.00	1000.00	.000	54
66	611	1012.00	1000.00	.000	56
67	811	1032.00	1000.00	.000	58
68	1811	1032.00	1000.00	.000	60
69	1211	1032.00	1000.00	.000	62

70	70	1006.00	995.00	.000	29	64
71	71	961.00	950.00	.000	49	65
72	72	511.00	500.00	.000	69	66
73	73	1021.00	995.00	.000	86	67
74	74	976.00	950.00	.000	106	68
75	75	526.00	500.00	.000	126	69

COND

	1	2	3	4	5	6	7	8	9	10
1 TO 10	21	22	23	24	25	26	27	28	41	42
11 TO 20	43	44	45	46	47	48	61	62	63	64
21 TO 30	65	66	67	68	81	82	83	84	85	101
31 TO 40	102	103	104	105	121	122	123	124	125	29
41 TO 50	30	49	50	69	70	86	87	106	107	126
51 TO 60	127	52	53	54	55	56	57	58	59	60
61 TO 70	61	62	63	64	65	66	67	68	69	70
71 TO 80	71	72	73	74	75	76	77	78	79	80
81 TO 81	81									

NODE

	1	2	3	4	5	6	7	8	9	10
1 TO 10	210	220	230	240	250	260	270	280	290	291
11 TO 20	292	293	410	420	430	440	450	460	470	480
21 TO 30	490	491	492	493	610	620	630	640	650	660
31 TO 40	670	680	690	691	692	693	810	820	830	840
41 TO 50	850	860	861	862	863	1010	1020	1030	1040	1050
51 TO 60	1060	1061	1062	1063	1210	1220	1230	1240	1250	1260
61 TO 70	1261	1262	1263	211	411	611	811	1011	1211	70
71 TO 75	71	72	73	74	75					

INPUT HYDROGRAPHS (CARDS) AT 6 JUNCTIONS

TIME, HRS	211	411	611	811	1011	1211
	JUNCTION INFLOWS IN CFS					
10.00	.59	1.88	5.94	78.54	223.87	785.42

TOTAL CARD INPUT HYDROGRAPH IS 1887.448 CFS

11.00	5.94	18.77	59.35	785.41	2238.73	7854.19

TOTAL CARD INPUT HYDROGRAPH IS 10874.398 CFS

PRINT CYCLE NUMBER 1 NODAL WATER DEPTH FT

NODE	1	2	3	4	5	6	7	8	9	10
1 TO 10	.4851+00	.4851+00	.4852+00	.4855+00	.4857+00	.4857+00	.4856+00	.4855+00	.3857+00	.5140-02
11 TO 20	.0000	.1851-02	.4866+00	.4865+00	.4865+00	.4865+00	.4868+00	.4853+00	.4169+00	.3864+00
21 TO 30	.7547+00	.1503-01	.0000	.3378-02	.4864+00	.4861+00	.4878+00	.4845+00	.4141+00	.3983+00
31 TO 40	.4753+00	.2804+00	.1571+01	.1982-01	.2548-02	.5154-02	.2448+01	.2443+01	.2452+01	.2491+01
41 TO 50	.2579+01	.2735+01	.9914-01	.0000	.2852-01	.2437+01	.2437+01	.2438+01	.2431+01	.2645+01
51 TO 60	.5647+01	.1898+00	.0000	.7894-01	.2421+01	.2495+01	.2378+01	.2756+01	.2091+01	.1184+02
61 TO 70	.2119+00	.7143-01	.8790-01	.4900+00	.7121+00	.1201+01	.3184+01	.4823>01	.8426+01	.0000
71 TO 75	.0000	.1200-01	.0000	.7605-05	.1908+00					

PRINT CYCLE NUMBER 1 CONDUIT FLOWS IN CFS

COND	1	2	3	4	5	6	7	8	9	10
1 TO 10	.5899+00	.5900+00	.5902+00	.5911+00	.5917+00	.5917+00	.5914+00	.5912+00	.1880+01	.1880+01
11 TO 20	.1880+01	.1880+01	.1880+01	.1876+01	.1880+01	.1776+01	.5939+01	.5938+01	.5940+01	.5926+01
21 TO 30	.5939+01	.5824+01	.5926+01	.4854+01	.7854+02	.7854+02	.7854+02	.7854+02	.7854+02	.2238+03
31 TO 40	.2238+03	.2231+03	.2218+03	.2164+03	.7821+03	.7855+03	.6942+03	.7857+03	.6276+03	.0000
41 TO 50	.6479+00	.0000	.2882+01	.2213+01	.4491+01	.0000	.8331+02	.0000	.2881+03	.4102+03
51 TO 60	.5848+03	.5907+00	.5911+00	.1883+01	.1881+01	.5953+01	.3914+01	.7857+02	.7866+02	.2232+03
61 TO 70	.2231+03	.7461+03	.3868+03	.0000	.0000	.2839+01	.0000	.0000	.3285+03	.0000
71 TO 80	.6479+00	.0000	.2882+01	.2213+01	.4491+01	.0000	.8331+02	.0000	.2881+03	.4102+03
81 TO 81	.5848+03									

PRINT CYCLE NUMBER 73 NODAL WATER DEPTH FT

NODE	1	2	3	4	5	6	7	8	9	10
1 TO 10	.4583+00	.4145+00	.4858+00	.4854+00	.4856+00	.4857+00	.4856+00	.4855+00	.3857+00	.5036-02
11 TO 20	.0000	.9713-03	.5038+00	.4477+00	.4146+00	.4875+00	.4869+00	.4858+00	.4128+00	.4868+00
21 TO 30	.7416+00	.1443-01	.0000	.3001-02	.5024+00	.4944+00	.4635+00	.4259+00	.4175+00	.4027+00
31 TO 40	.4358+00	.3576+00	.1598+01	.1908-01	.2286-02	.4496-02	.2762+01	.2528+01	.2462+01	.2492+01
41 TO 50	.2579+01	.2733+01	.9544-01	.0000	.1758-01	.3812+01	.2754+01	.2531+01	.2466+01	.2706+01

EPA SEWER MODEL EVALUATION
BATTELLE PACIFIC NORTHWEST LABORATORIES

WATER RESOURCES ENGINEERS, INC.
WALNUT CREEK, CALIFORNIA
STORM DRAINAGE MODEL

TIME HISTORY OF H. G. L.
(VALUES IN FEET)

TIME HR . MIN	JUNCTION 211 GRND1812.00 ELEV	DEPTH	JUNCTION 218 GRND1812.00 ELEV	DEPTH	JUNCTION 298 GRND1886.00 ELEV	DEPTH	JUNCTION 411 GRND1812.00 ELEV	DEPTH	JUNCTION 418 GRND1812.00 ELEV	DEPTH	JUNCTION 498 GRND 961.00 ELEV	DEPTH
10, 0	1000.49	.49	1000.41	.41	995.39	.39	1000.71	.71	1000.41	.41	958.75	.75
10, 4	1000.58	.58	1000.46	.46	995.39	.39	1000.98	.98	1000.58	.58	958.74	.74
10, 7	1000.69	.69	1000.54	.54	995.39	.39	1001.86	1.86	1000.59	.59	958.76	.76
10,11	1000.78	.78	1000.61	.61	995.39	.39	1001.28	1.28	1000.65	.65	958.76	.76
10,14	1000.86	.86	1000.68	.68	995.39	.39	1001.34	1.34	1000.73	.73	958.76	.76
10,18	1000.94	.94	1000.74	.74	995.39	.39	1001.48	1.48	1000.80	.80	958.77	.77
10,22	1001.02	1.02	1000.81	.81	995.39	.39	1001.61	1.61	1000.86	.86	958.80	.80
10,25	1001.09	1.09	1000.86	.86	995.39	.39	1001.74	1.74	1000.92	.92	958.88	.88
10,29	1001.16	1.16	1000.92	.92	995.39	.39	1001.89	1.89	1000.97	.97	951.05	1.05
10,32	1001.23	1.23	1000.98	.98	995.39	.39	1001.91	1.91	1001.04	1.04	951.28	1.28
10,36	1001.30	1.30	1001.03	1.03	995.39	.39	1001.98	1.98	1001.08	1.08	951.50	1.50
10,40	1001.37	1.37	1001.08	1.08	995.39	.39	1002.08	2.08	1001.14	1.14	951.70	1.70
10,43	1001.43	1.43	1001.14	1.14	995.40	.40	1002.05	2.05	1001.20	1.20	951.87	1.87
10,47	1001.50	1.50	1001.19	1.19	995.40	.40	1002.26	2.26	1001.26	1.26	952.01	2.00
10,50	1001.57	1.57	1001.24	1.24	995.41	.41	1002.45	2.45	1001.32	1.32	952.17	2.00
10,54	1001.63	1.63	1001.30	1.30	995.43	.43	1002.65	2.65	1001.37	1.37	952.36	2.00
10,58	1001.70	1.70	1001.35	1.35	995.45	.45	1002.87	2.87	1001.44	1.44	952.58	2.00
11, 1	1001.74	1.74	1001.39	1.39	995.49	.49	1002.95	2.95	1001.47	1.47	952.81	2.00
11, 5	1001.71	1.71	1001.38	1.38	995.53	.53	1002.74	2.74	1001.41	1.41	953.01	2.00
11, 8	1001.66	1.66	1001.36	1.36	995.59	.59	1002.52	2.52	1001.35	1.35	953.19	2.00
11,12	1001.60	1.60	1001.32	1.32	995.66	.66	1002.32	2.32	1001.29	1.29	953.37	2.00
11,16	1001.54	1.54	1001.28	1.28	995.73	.73	1002.13	2.13	1001.23	1.23	953.53	2.00
11,19	1001.48	1.48	1001.23	1.23	995.82	.82	1002.15	2.15	1001.18	1.18	953.69	2.00
11,23	1001.42	1.42	1001.18	1.18	995.92	.92	1001.84	1.84	1001.16	1.16	953.67	2.00
11,26	1001.35	1.35	1001.13	1.13	996.02	1.02	1001.91	1.91	1001.07	1.07	953.64	2.00
11,30	1001.28	1.28	1001.08	1.08	996.11	1.11	1001.65	1.65	1001.01	1.01	953.53	2.00
11,34	1001.21	1.21	1001.02	1.02	996.17	1.17	1001.79	1.79	1000.95	.95	953.39	2.00
11,37	1001.14	1.14	1000.97	.97	996.22	1.22	1001.65	1.65	1000.89	.89	953.23	2.00
11,41	1001.07	1.07	1000.91	.91	996.26	1.26	1001.52	1.52	1000.83	.83	952.99	2.00
11,44	1000.99	.99	1000.85	.85	996.28	1.28	1001.39	1.39	1000.76	.76	952.64	2.00
11,48	1000.91	.91	1000.78	.78	996.30	1.30	1001.25	1.25	1000.70	.70	952.36	2.00
11,52	1000.82	.82	1000.71	.71	996.30	1.30	1001.11	1.11	1000.62	.62	952.14	2.00
11,55	1000.72	.72	1000.64	.64	996.30	1.30	1000.95	.95	1000.55	.55	951.96	1.96
11,59	1000.62	.62	1000.56	.56	996.29	1.29	1000.78	.78	1000.46	.46	951.84	1.84
12, 2	1000.55	.55	1000.49	.49	996.28	1.28	1000.71	.71	1000.41	.41	951.73	1.73
12, 6	1000.53	.53	1000.46	.46	996.26	1.26	1000.71	.71	1000.41	.41	951.61	1.61
12,10	1000.52	.52	1000.44	.44	996.24	1.24	1000.71	.71	1000.41	.41	951.50	1.50
12,13	1000.51	.51	1000.43	.43	996.22	1.22	1000.71	.71	1000.41	.41	951.39	1.39
12,17	1000.50	.50	1000.42	.42	996.19	1.19	1000.71	.71	1000.41	.41	951.28	1.28
12,20	1000.50	.50	1000.42	.42	996.16	1.16	1000.71	.71	1000.41	.41	951.18	1.18
12,24	1000.50	.50	1000.42	.42	996.13	1.13	1000.71	.71	1000.41	.41	951.09	1.09
12,28	1000.50	.50	1000.41	.41	996.09	1.09	1000.71	.71	1000.41	.41	951.01	1.01
12,31	1000.49	.49	1000.41	.41	996.06	1.06	1000.71	.71	1000.41	.41	950.93	.93
12,35	1000.49	.49	1000.41	.41	996.02	1.02	1000.71	.71	1000.41	.41	950.87	.87
12,38	1000.49	.49	1000.41	.41	995.98	.98	1000.71	.71	1000.41	.41	950.82	.82
12,42	1000.49	.49	1000.41	.41	995.93	.93	1000.71	.71	1000.41	.41	950.80	.80
12,46	1000.49	.49	1000.41	.41	995.89	.89	1000.71	.71	1000.41	.41	950.78	.78
12,49	1000.49	.49	1000.41	.41	995.84	.84	1000.71	.71	1000.41	.41	950.77	.77
12,53	1000.49	.49	1000.41	.41	995.80	.80	1000.71	.71	1000.41	.41	950.76	.76

12,56	1000,49	,49	1000,41	,41	995,77	,77	1000,71	,71	1000,41	,41	950,75	,75
13, 0	1000,49	,49	1000,41	,41	995,71	,73	1000,71	,71	1000,41	,41	950,75	,75
13, 4	1000,49	,49	1000,41	,41	995,70	,70	1000,71	,71	1000,41	,41	950,75	,75
13, 7	1000,49	,49	1000,41	,41	995,67	,67	1000,71	,71	1000,41	,41	950,75	,75
13,11	1000,49	,49	1000,41	,41	995,65	,65	1000,71	,71	1000,41	,41	950,75	,75
13,14	1000,49	,49	1000,41	,41	995,62	,62	1000,71	,71	1000,41	,41	950,75	,75
13,18	1000,49	,49	1000,41	,41	995,60	,60	1000,71	,71	1000,41	,41	950,75	,75
13,22	1000,49	,49	1000,41	,41	995,58	,58	1000,71	,71	1000,41	,41	950,75	,75
13,25	1000,49	,49	1000,41	,41	995,56	,56	1000,71	,71	1000,41	,41	950,75	,75
13,29	1000,49	,49	1000,41	,41	995,55	,55	1000,71	,71	1000,41	,41	950,75	,75
13,32	1000,49	,49	1000,41	,41	995,53	,53	1000,71	,71	1000,41	,41	950,75	,75
13,36	1000,49	,49	1000,41	,41	995,52	,52	1000,71	,71	1000,41	,41	950,75	,75
13,40	1000,49	,49	1000,41	,41	995,50	,50	1000,71	,71	1000,41	,41	950,75	,75
13,43	1000,49	,49	1000,41	,41	995,49	,49	1000,71	,71	1000,41	,41	950,75	,75
13,47	1000,49	,49	1000,41	,41	995,48	,48	1000,71	,71	1000,41	,41	950,75	,75
13,50	1000,49	,49	1000,41	,41	995,47	,47	1000,71	,71	1000,41	,41	950,75	,75
13,54	1000,49	,49	1000,41	,41	995,46	,46	1000,71	,71	1000,41	,41	950,75	,75
13,58	1000,49	,49	1000,41	,41	995,46	,46	1000,71	,71	1000,41	,41	950,75	,75
14, 1	1000,49	,49	1000,41	,41	995,45	,45	1000,71	,71	1000,41	,41	950,75	,75
14, 5	1000,49	,49	1000,41	,41	995,44	,44	1000,71	,71	1000,41	,41	950,75	,75
14, 8	1000,49	,49	1000,41	,41	995,44	,44	1000,71	,71	1000,41	,41	950,75	,75
14,12	1000,49	,49	1000,41	,41	995,43	,43	1000,71	,71	1000,41	,41	950,75	,75
14,16	1000,49	,49	1000,41	,41	995,43	,43	1000,71	,71	1000,41	,41	950,75	,75
14,19	1000,49	,49	1000,41	,41	995,42	,42	1000,71	,71	1000,41	,41	950,75	,75
14,23	1000,49	,49	1000,41	,41	995,42	,42	1000,71	,71	1000,41	,41	950,75	,75
14,26	1000,49	,49	1000,41	,41	995,41	,41	1000,71	,71	1000,41	,41	950,75	,75
14,30	1000,49	,49	1000,41	,41	995,41	,41	1000,71	,71	1000,41	,41	950,75	,75
14,34	1000,49	,49	1000,41	,41	995,41	,41	1000,71	,71	1000,41	,41	950,75	,75
14,37	1000,49	,49	1000,41	,41	995,40	,40	1000,71	,71	1000,41	,41	950,75	,75
14,41	1000,49	,49	1000,41	,41	995,40	,40	1000,71	,71	1000,41	,41	950,75	,75
14,44	1000,49	,49	1000,41	,41	995,40	,40	1000,71	,71	1000,41	,41	950,75	,75
14,48	1000,49	,49	1000,41	,41	995,40	,40	1000,71	,71	1000,41	,41	950,75	,75
14,52	1000,49	,49	1000,41	,41	995,40	,40	1000,71	,71	1000,41	,41	950,75	,75
14,55	1000,49	,49	1000,41	,41	995,40	,40	1000,71	,71	1000,41	,41	950,75	,75
14,59	1000,49	,49	1000,41	,41	995,39	,39	1000,71	,71	1000,41	,41	950,75	,75
15, 2	1000,49	,49	1000,41	,41	995,39	,39	1000,71	,71	1000,41	,41	950,75	,75
15, 6	1000,49	,49	1000,41	,41	995,39	,39	1000,71	,71	1000,41	,41	950,75	,75
15,10	1000,49	,49	1000,41	,41	995,39	,39	1000,71	,71	1000,41	,41	950,75	,75
15,13	1000,49	,49	1000,41	,41	995,39	,39	1000,71	,71	1000,41	,41	950,75	,75
15,17	1000,49	,49	1000,41	,41	995,39	,39	1000,71	,71	1000,41	,41	950,75	,75
15,20	1000,49	,49	1000,41	,41	995,39	,39	1000,71	,71	1000,41	,41	950,75	,75
15,24	1000,49	,49	1000,41	,41	995,39	,39	1000,71	,71	1000,41	,41	950,75	,75
15,28	1000,49	,49	1000,41	,41	995,39	,39	1000,71	,71	1000,41	,41	950,75	,75
15,31	1000,49	,49	1000,41	,41	995,39	,39	1000,71	,71	1000,41	,41	950,75	,75
15,35	1000,49	,49	1000,41	,41	995,39	,39	1000,71	,71	1000,41	,41	950,75	,75
15,38	1000,49	,49	1000,41	,41	995,39	,39	1000,71	,71	1000,41	,41	950,75	,75
15,42	1000,49	,49	1000,41	,41	995,39	,39	1000,71	,71	1000,41	,41	950,75	,75
15,46	1000,49	,49	1000,41	,41	995,39	,39	1000,71	,71	1000,41	,41	950,75	,75
15,49	1000,49	,49	1000,41	,41	995,39	,39	1000,71	,71	1000,41	,41	950,75	,75
15,53	1000,49	,49	1000,41	,41	995,39	,39	1000,71	,71	1000,41	,41	950,75	,75
15,56	1000,49	,49	1000,41	,41	995,39	,39	1000,71	,71	1000,41	,41	950,75	,75

EPA SEWER MODEL EVALUATION
BATTELLE PACIFIC NORTHWEST LABORATORIES

WATER RESOURCES ENGINEERS, INC.
WALNUT CREEK, CALIFORNIA
STORM DRAINAGE MODEL

TIME HISTORY OF FLOW AND VELOCITY

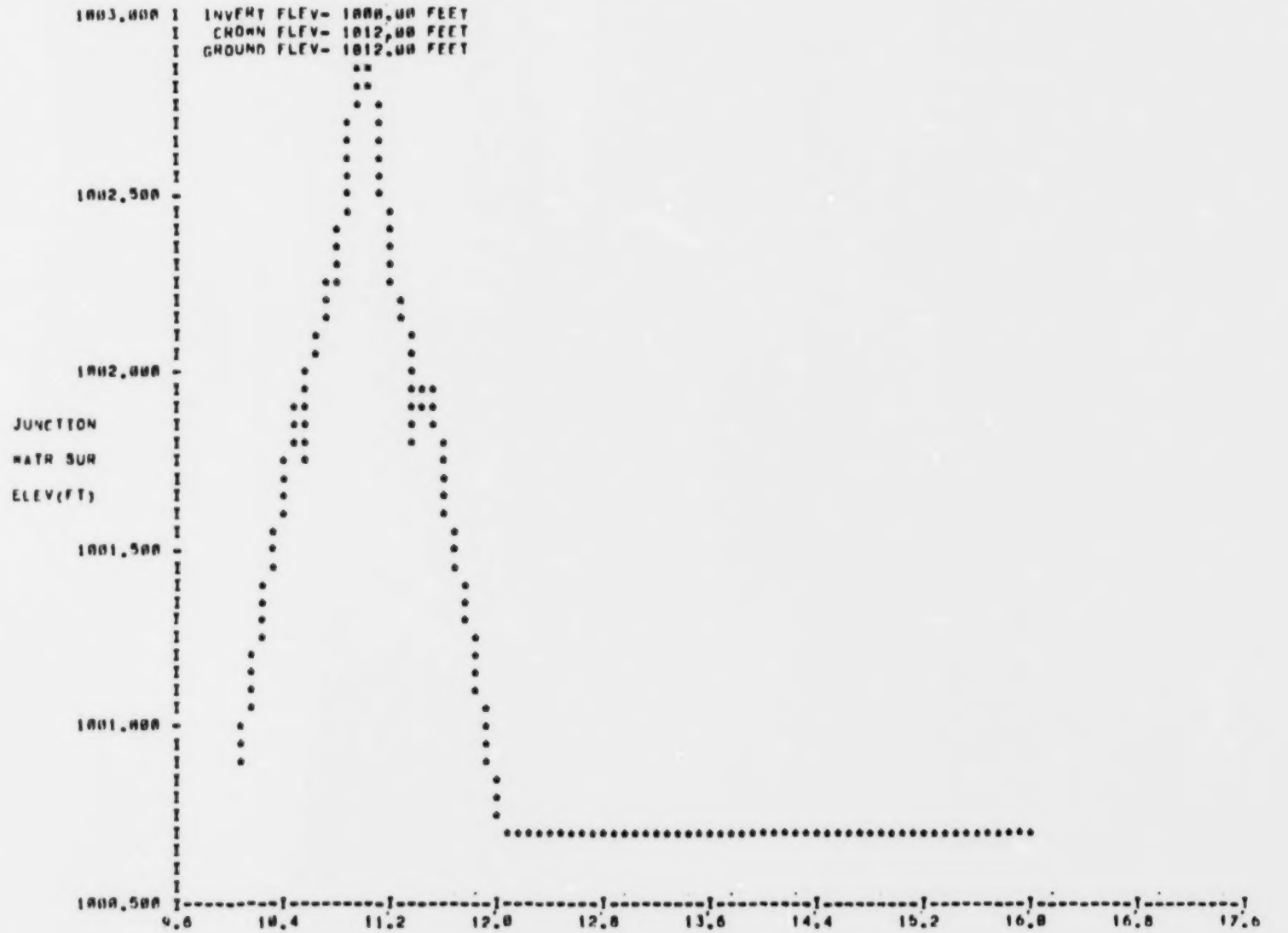
Q(CFS), VEL(FPS), HLOS(FT)

TIME	CONDUIT 52				CONDUIT 53				CONDUIT 64				CONDUIT 54				CONDUIT 55				CONDUIT 65			
HR , MIN	FLOW	VEL	FNT	FXT	FLOW	VEL	FNT	FXT	FLOW	VEL	FNT	FXT	FLOW	VEL	FNT	FXT	FLOW	VEL	FNT	FXT	FLOW	VEL	FNT	FXT
10, 0	.59	.0	.00	.00	.59	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
10, 4	.91	.0	.00	.00	.59	.0	.00	.00	.00	.0	.00	.00	2.90	.0	.00	.00	1.83	.0	.00	.00	.00	.0	.00	.00
10, 7	1.23	.0	.00	.00	.59	.0	.00	.00	.00	.0	.00	.00	3.91	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
10,11	1.55	.0	.00	.00	.59	.0	.00	.00	.00	.0	.00	.00	4.93	.0	.00	.00	1.89	.0	.00	.00	.00	.0	.00	.00
10,14	1.87	.0	.00	.00	.59	.0	.00	.00	.00	.0	.00	.00	5.94	.0	.00	.00	1.90	.0	.00	.00	.00	.0	.00	.00
10,18	2.19	.0	.00	.00	.59	.0	.00	.00	.00	.0	.00	.00	6.96	.0	.00	.00	1.94	.0	.00	.00	.00	.0	.00	.00
10,22	2.52	.0	.00	.00	.59	.0	.00	.00	.00	.0	.00	.00	7.97	.0	.00	.00	2.06	.0	.00	.00	.00	.0	.00	.00
10,25	2.84	.0	.00	.00	.59	.0	.00	.00	.00	.0	.00	.00	8.98	.0	.00	.00	2.34	.0	.00	.00	.00	.0	.00	.00
10,29	3.16	.0	.00	.00	.59	.0	.00	.00	.00	.0	.00	.00	9.99	.0	.00	.00	2.80	.0	.00	.00	.05	.0	.00	.00
10,32	3.48	.0	.00	.00	.60	.0	.00	.00	.00	.0	.00	.00	9.93	.0	.00	.00	3.32	.0	.00	.00	.68	.0	.00	.00
10,36	3.80	.0	.00	.00	.60	.0	.00	.00	.00	.0	.00	.00	13.87	.0	.00	.00	3.78	.0	.00	.00	1.67	.0	.00	.00
10,40	4.12	.0	.00	.00	.61	.0	.00	.00	.00	.0	.00	.00	11.89	.0	.00	.00	4.13	.0	.00	.00	2.74	.0	.00	.00
10,43	4.44	.0	.00	.00	.62	.0	.00	.00	.00	.0	.00	.00	14.84	.0	.00	.00	4.42	.0	.00	.00	3.88	.0	.00	.00
10,47	4.76	.0	.00	.00	.64	.0	.00	.00	.00	.0	.00	.00	15.86	.0	.00	.00	4.64	.0	.00	.00	4.75	.0	.00	.00
10,50	5.08	.0	.00	.00	.67	.0	.00	.00	.00	.0	.00	.00	16.87	.0	.00	.00	4.88	.0	.00	.00	5.45	.0	.00	.00
10,54	5.41	.0	.00	.00	.72	.0	.00	.00	.00	.0	.00	.00	17.88	.0	.00	.00	5.16	.0	.00	.00	6.19	.0	.00	.00
10,58	5.73	.0	.00	.00	.79	.0	.00	.00	.00	.0	.00	.00	18.10	.0	.00	.00	5.45	.0	.00	.00	6.93	.0	.00	.00
11, 1	5.83	.0	.00	.00	.90	.0	.00	.00	.00	.0	.00	.00	18.43	.0	.00	.00	5.74	.0	.00	.00	7.62	.0	.00	.00
11, 5	5.51	.0	.00	.00	1.85	.0	.00	.00	.00	.0	.00	.00	17.42	.0	.00	.00	5.99	.0	.00	.00	8.28	.0	.00	.00
11, 8	5.19	.0	.00	.00	1.25	.0	.00	.00	.00	.0	.00	.00	16.40	.0	.00	.00	6.20	.0	.00	.00	8.67	.0	.00	.00
11,12	4.87	.0	.00	.00	1.58	.0	.00	.00	.00	.0	.00	.00	15.39	.0	.00	.00	6.36	.0	.00	.00	9.02	.0	.00	.00
11,16	4.55	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00	14.38	.0	.00	.00	6.55	.0	.00	.00	9.43	.0	.00	.00
11,19	4.23	.0	.00	.00	2.12	.0	.00	.00	.00	.0	.00	.00	11.91	.0	.00	.00	6.68	.0	.00	.00	9.72	.0	.00	.00
11,23	3.91	.0	.00	.00	2.45	.0	.00	.00	.00	.0	.00	.00	10.88	.0	.00	.00	6.73	.0	.00	.00	9.82	.0	.00	.00
11,26	3.59	.0	.00	.00	2.72	.0	.00	.00	.01	.0	.00	.00	12.84	.0	.00	.00	6.70	.0	.00	.00	9.74	.0	.00	.00
11,30	3.26	.0	.00	.00	2.94	.0	.00	.00	.16	.0	.00	.00	10.47	.0	.00	.00	6.59	.0	.00	.00	9.51	.0	.00	.00
11,34	2.94	.0	.00	.00	3.10	.0	.00	.00	.34	.0	.00	.00	9.31	.0	.00	.00	6.43	.0	.00	.00	9.16	.0	.00	.00
11,37	2.62	.0	.00	.00	3.21	.0	.00	.00	.49	.0	.00	.00	8.29	.0	.00	.00	6.24	.0	.00	.00	8.75	.0	.00	.00
11,41	2.30	.0	.00	.00	3.29	.0	.00	.00	.62	.0	.00	.00	7.28	.0	.00	.00	5.97	.0	.00	.00	8.14	.0	.00	.00
11,44	1.98	.0	.00	.00	3.35	.0	.00	.00	.71	.0	.00	.00	6.27	.0	.00	.00	5.54	.0	.00	.00	7.12	.0	.00	.00
11,48	1.66	.0	.00	.00	3.38	.0	.00	.00	.76	.0	.00	.00	5.25	.0	.00	.00	5.16	.0	.00	.00	6.17	.0	.00	.00
11,52	1.34	.0	.00	.00	3.39	.0	.00	.00	.78	.0	.00	.00	4.24	.0	.00	.00	4.85	.0	.00	.00	5.14	.0	.00	.00
11,55	1.02	.0	.00	.00	3.38	.0	.00	.00	.77	.0	.00	.00	3.23	.0	.00	.00	4.57	.0	.00	.00	4.44	.0	.00	.00
11,59	.70	.0	.00	.00	3.36	.0	.00	.00	.74	.0	.00	.00	2.21	.0	.00	.00	4.38	.0	.00	.00	3.62	.0	.00	.00
12, 2	.59	.0	.00	.00	3.34	.0	.00	.00	.69	.0	.00	.00	1.88	.0	.00	.00	4.19	.0	.00	.00	2.92	.0	.00	.00
12, 6	.59	.0	.00	.00	3.30	.0	.00	.00	.63	.0	.00	.00	1.88	.0	.00	.00	3.99	.0	.00	.00	2.27	.0	.00	.00
12,10	.59	.0	.00	.00	3.25	.0	.00	.00	.56	.0	.00	.00	1.88	.0	.00	.00	3.78	.0	.00	.00	1.66	.0	.00	.00
12,13	.59	.0	.00	.00	3.20	.0	.00	.00	.47	.0	.00	.00	1.88	.0	.00	.00	3.56	.0	.00	.00	1.13	.0	.00	.00
12,17	.59	.0	.00	.00	3.14	.0	.00	.00	.39	.0	.00	.00	1.88	.0	.00	.00	3.34	.0	.00	.00	.69	.0	.00	.00
12,20	.59	.0	.00	.00	3.07	.0	.00	.00	.30	.0	.00	.00	1.88	.0	.00	.00	3.12	.0	.00	.00	.36	.0	.00	.00
12,24	.59	.0	.00	.00	3.00	.0	.00	.00	.22	.0	.00	.00	1.88	.0	.00	.00	2.91	.0	.00	.00	.13	.0	.00	.00
12,28	.59	.0	.00	.00	2.92	.0	.00	.00	.14	.0	.00	.00	1.88	.0	.00	.00	2.72	.0	.00	.00	.01	.0	.00	.00
12,31	.59	.0	.00	.00	2.83	.0	.00	.00	.07	.0	.00	.00	1.88	.0	.00	.00	2.51	.0	.00	.00	.00	.0	.00	.00
12,35	.59	.0	.00	.00	2.74	.0	.00	.00	.02	.0	.00	.00	1.88	.0	.00	.00	2.30	.0	.00	.00	.00	.0	.00	.00
12,38	.59	.0	.00	.00	2.63	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	2.14	.0	.00	.00	.00	.0	.00	.00
12,42	.59	.0	.00	.00	2.51	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	2.04	.0	.00	.00	.00	.0	.00	.00
12,46	.59	.0	.00	.00	2.36	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.98	.0	.00	.00	.00	.0	.00	.00
12,49	.59	.0	.00	.00	2.21	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.94	.0	.00	.00	.00	.0	.00	.00
12,53	.59	.0	.00	.00	2.06	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.91	.0	.00	.00	.00	.0	.00	.00
12,56	.59	.0	.00	.00	1.92	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.90	.0	.00	.00	.00	.0	.00	.00
13, 0	.59	.0	.00	.00	1.80	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.89	.0	.00	.00	.00	.0	.00	.00

13, 4	.59	.0	.00	.00	1.68	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.89	.0	.00	.00	.00	.0	.00	.00
13, 7	.59	.0	.00	.00	1.57	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
13,11	.59	.0	.00	.00	1.47	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
13,14	.59	.0	.00	.00	1.38	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
13,18	.59	.0	.00	.00	1.38	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
13,22	.59	.0	.00	.00	1.23	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
13,25	.59	.0	.00	.00	1.16	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
13,29	.59	.0	.00	.00	1.10	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
13,32	.59	.0	.00	.00	1.05	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
13,36	.59	.0	.00	.00	1.00	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
13,40	.59	.0	.00	.00	.96	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
13,43	.59	.0	.00	.00	.92	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
13,47	.59	.0	.00	.00	.88	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
13,50	.59	.0	.00	.00	.86	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
13,54	.59	.0	.00	.00	.83	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
13,58	.59	.0	.00	.00	.80	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
14, 1	.59	.0	.00	.00	.78	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
14, 5	.59	.0	.00	.00	.76	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
14, 8	.59	.0	.00	.00	.74	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
14,12	.59	.0	.00	.00	.72	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
14,16	.59	.0	.00	.00	.71	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
14,19	.59	.0	.00	.00	.69	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
14,23	.59	.0	.00	.00	.68	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
14,26	.59	.0	.00	.00	.67	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
14,30	.59	.0	.00	.00	.66	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
14,34	.59	.0	.00	.00	.65	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
14,37	.59	.0	.00	.00	.65	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
14,41	.59	.0	.00	.00	.64	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
14,44	.59	.0	.00	.00	.63	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
14,48	.59	.0	.00	.00	.63	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
14,52	.59	.0	.00	.00	.62	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
14,55	.59	.0	.00	.00	.62	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
14,59	.59	.0	.00	.00	.62	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
15, 2	.59	.0	.00	.00	.61	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
15, 6	.59	.0	.00	.00	.61	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
15,10	.59	.0	.00	.00	.61	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
15,13	.59	.0	.00	.00	.61	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
15,17	.59	.0	.00	.00	.60	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
15,20	.59	.0	.00	.00	.60	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
15,24	.59	.0	.00	.00	.60	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
15,28	.59	.0	.00	.00	.60	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
15,31	.59	.0	.00	.00	.60	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
15,35	.59	.0	.00	.00	.60	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
15,38	.59	.0	.00	.00	.60	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
15,42	.59	.0	.00	.00	.60	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
15,46	.59	.0	.00	.00	.59	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
15,49	.59	.0	.00	.00	.59	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
15,53	.59	.0	.00	.00	.59	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00
15,56	.59	.0	.00	.00	.59	.0	.00	.00	.00	.0	.00	.00	1.88	.0	.00	.00	1.88	.0	.00	.00	.00	.0	.00	.00

EPA SEWER MODEL EVALUATION
BATTELLE PACIFIC NORTHWEST LABORATORIES

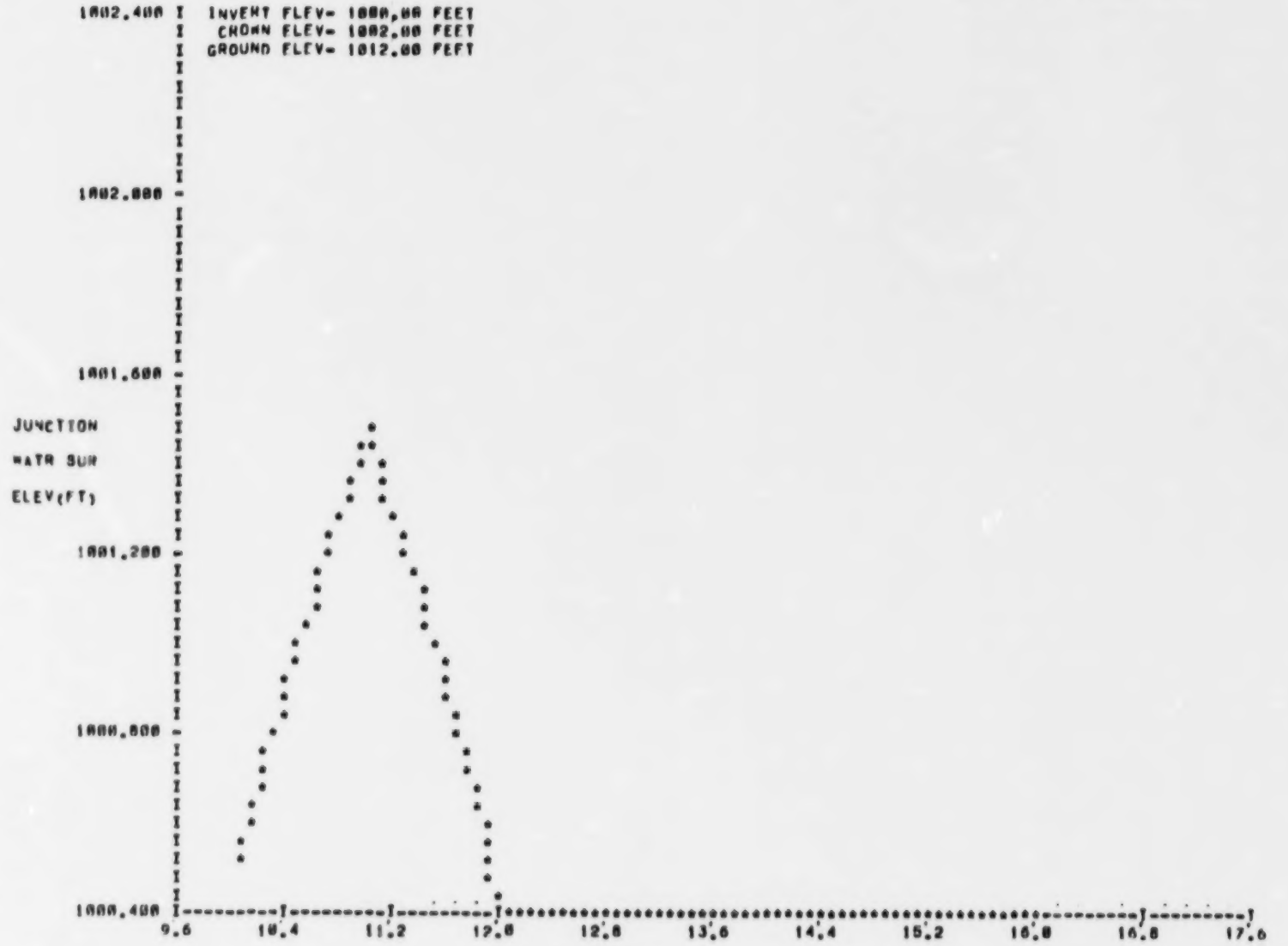
WATER RESOURCES ENGINEERS, INC.
WALNUT CREEK, CALIFORNIA
STORM DRAINAGE MODEL



JUNCTION NUMBER 411

EPA SEWER MODEL EVALUATION
BATTELLE PACIFIC NORTHWEST LABORATORIES

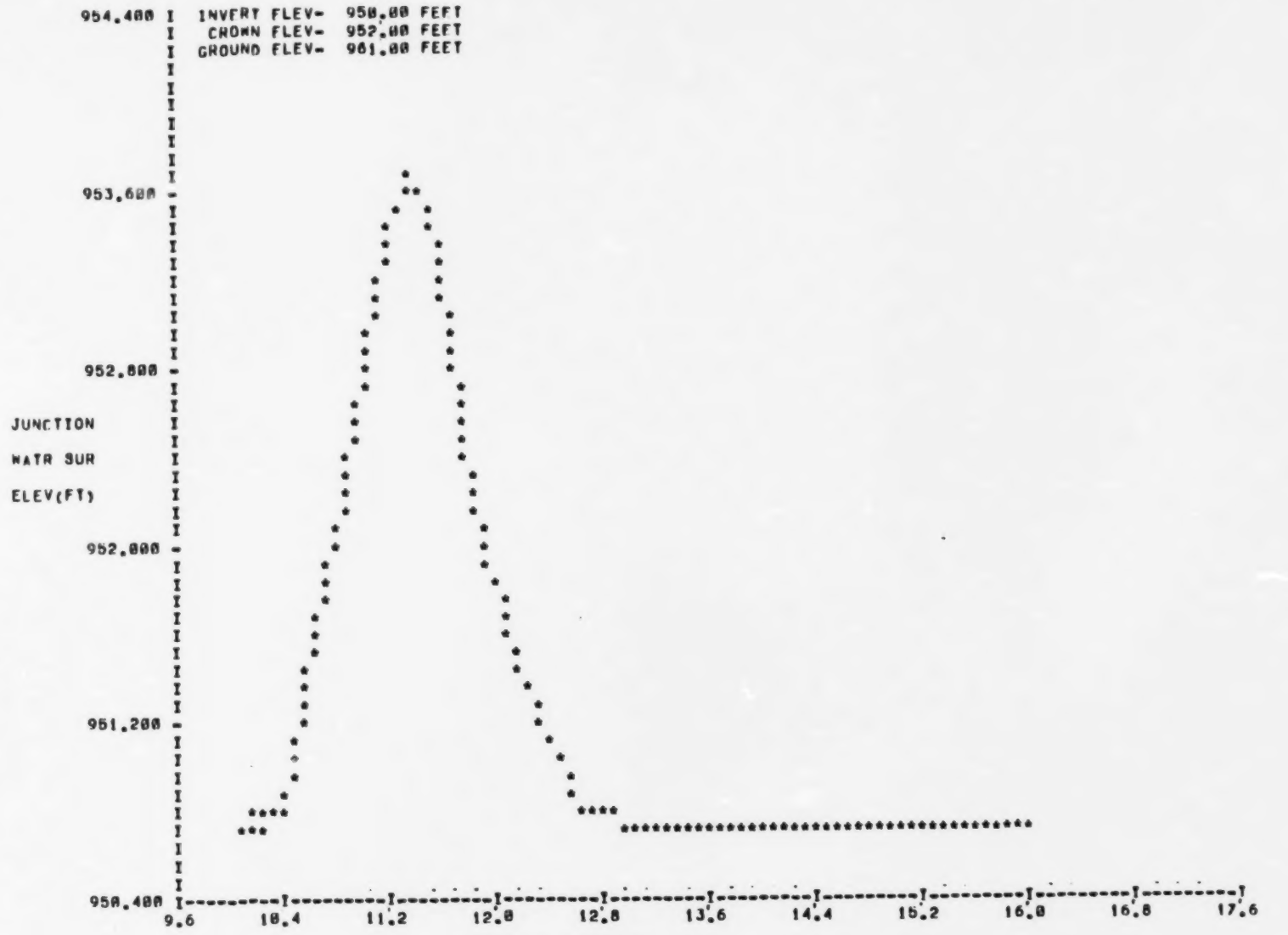
WATER RESOURCES ENGINEERS, INC.
WALNUT CREEK, CALIFORNIA
STORM DRAINAGE MODEL



JUNCTION NUMBER 410

EPA SEWER MODEL EVALUATION
BATTELLE PACIFIC NORTHWEST LABORATORIES

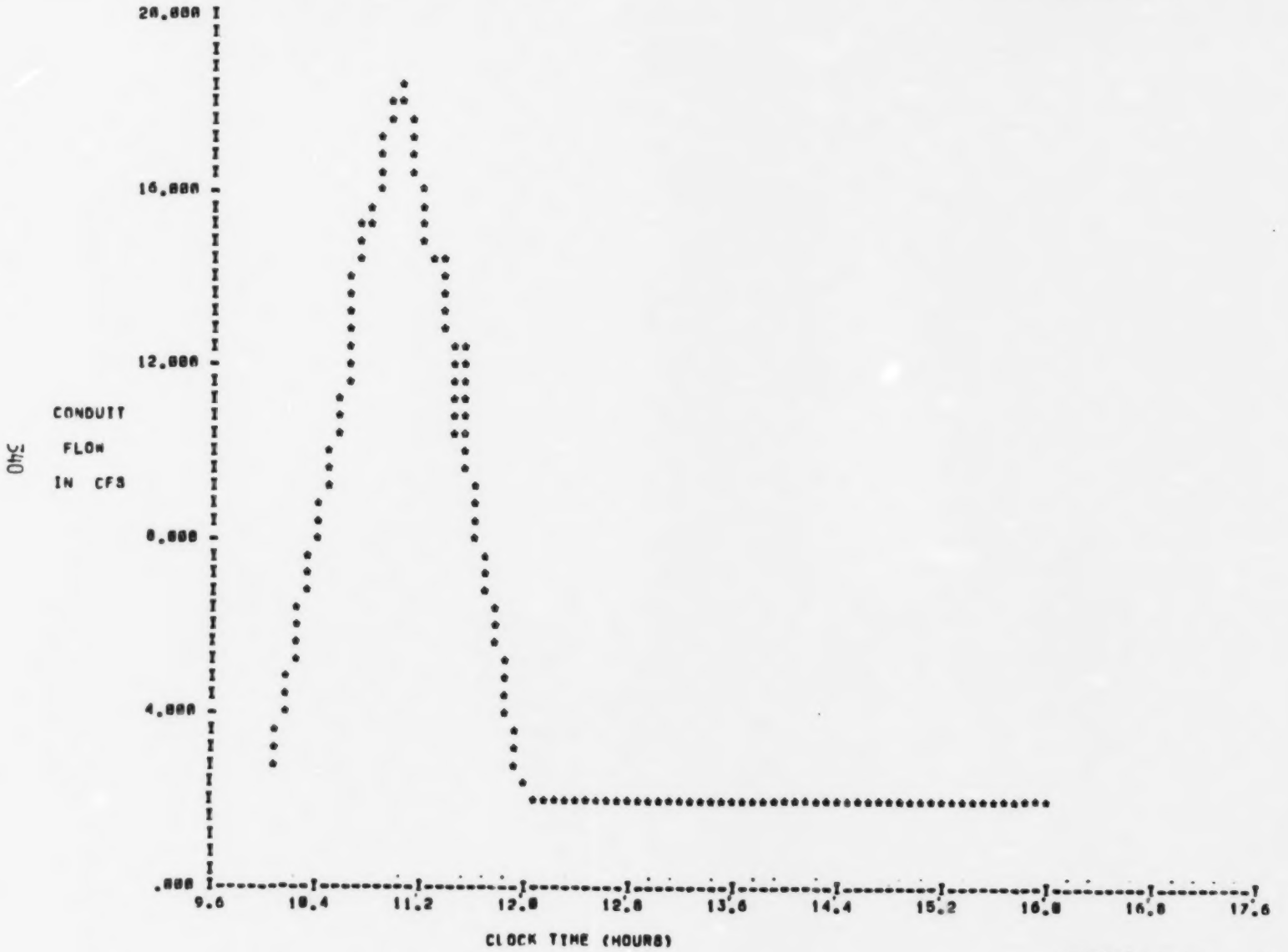
WATER RESOURCES ENGINEERS, INC.
WALNUT CREEK, CALIFORNIA
STORM DRAINAGE MODEL



JUNCTION NUMBER 490

EPA SEWER MODEL EVALUATION
BATTELLE PACIFIC NORTHWEST LABORATORIES

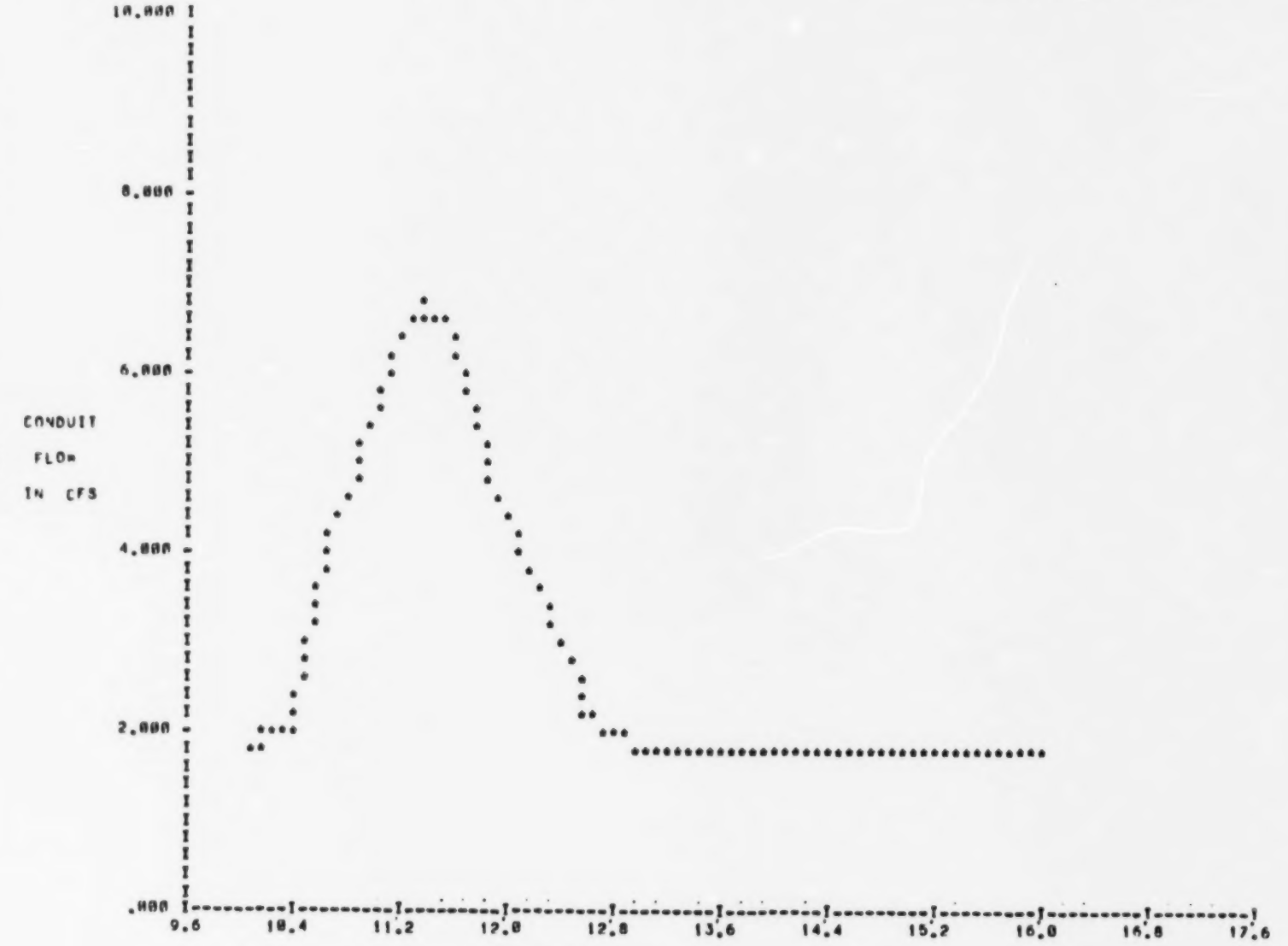
WATER RESOURCES ENGINEERS, INC.
WALNUT CREEK, CALIFORNIA
STORM DRAINAGE MODEL



CONDUIT NUMBER 54

EPA SEWER MODEL EVALUATION
BATTELLE PACIFIC NORTHWEST LABORATORIES

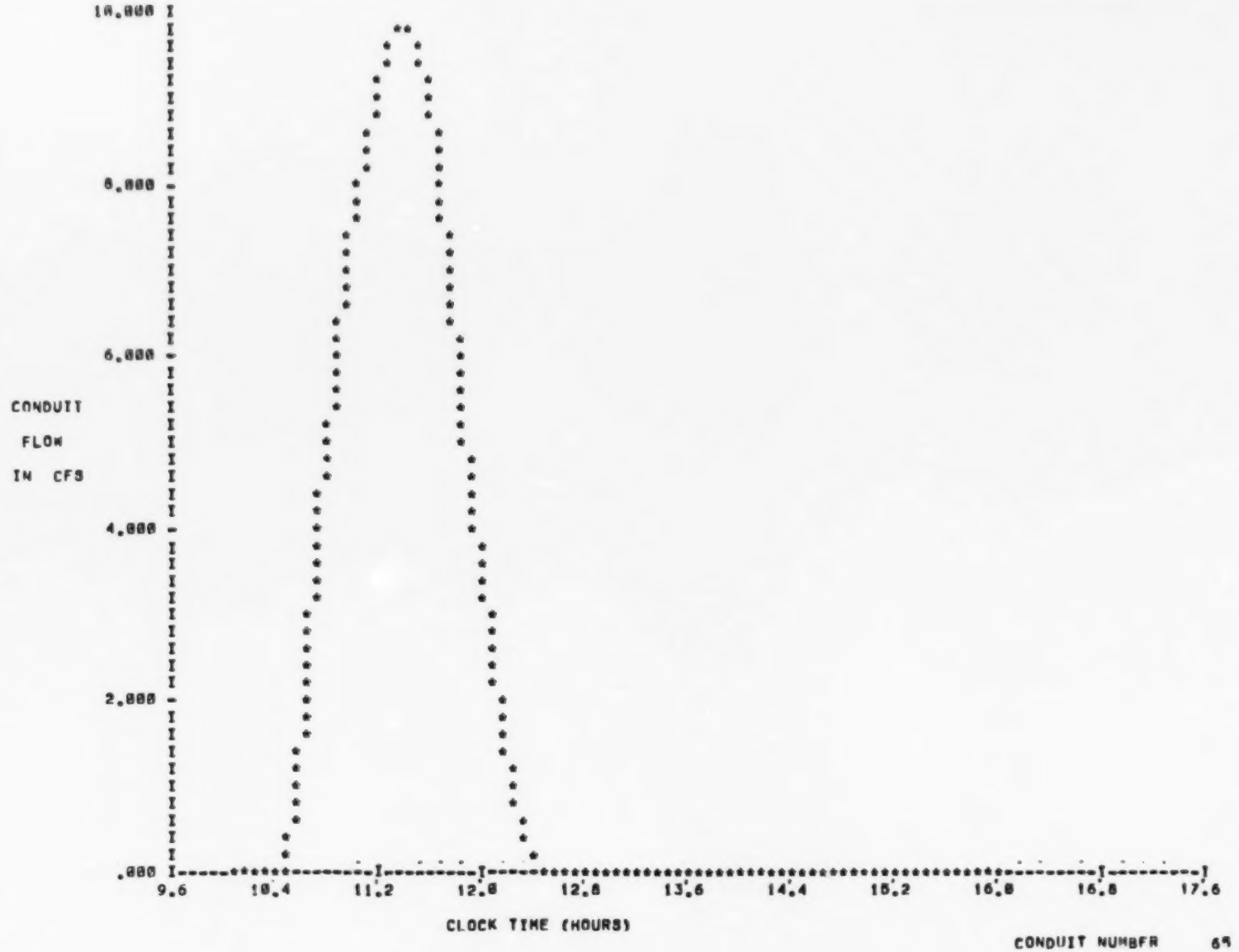
WATER RESOURCES ENGINEERS, INC.
WALNUT CREEK, CALIFORNIA
STORM DRAINAGE MODEL



CONDUIT NUMBER 55

EPA SEWER MODEL EVALUATION
BATTELLE PACIFIC NORTHWEST LABORATORIES

WATER RESOURCES ENGINEERS, INC.
WALNUT CREEK, CALIFORNIA
STORM DRAINAGE MODEL



CONDUIT NUMBER 69

BATTELLE -- TRANSIENT QUALITY MODEL NP-RUNS HYPOTHETICAL
2 FT PIPE SEEPERK.025 2-HR HYDROGRAPH

WATER RESOURCES ENGINEERS, INC.
WALNUT CREEK, CALIFORNIA
STORM DRAINAGE QUALITY MODEL

INTEGRATION CYCLES 135

LENGTH OF INTEGRATION STEP IS120. SECONDS

PRINTING STARTS IN CYCLE 2 AND PRINTS AT INTERVALS OF 2 CYCLES

INITIAL TIME IS 5.75 HOURS

POLLUTOGRAPHS WILL BE PRINTED AT 18 JUNCTIONS.

101	102	103	104	105	106	221	222	223	220	201	202
203	204	205	206	210	211						

INPUT POLLUTOGRAPHS (TAPE) AT 2 JUNCTIONS.

121 222

QUALITY SIMULATION PERIOD EXCEEDS RECORD PERIOD OF INPUT DATA, NUMBER OF QUALITY CYCLES REDUCED TO 134

BATTELLE -- TRANSPORT QUALITY MODEL NETWORKS HYPOTHETICAL
2 FT PIPE SLEEPING,POS 2-HR HYDROGRAPH

WATER RESOURCES ENGINEERS, INC.
WALNUT CREEK, CALIFORNIA
STORM DRAINAGE QUALITY MODEL

. . . . TIME HISTORY OF SUSPENDED SOLIDS . . . .

TIME	JUNCTION 101			JUNCTION 102			JUNCTION 103			JUNCTION 104			JUNCTION 105		
	FLOW	CONC	EMISSION RATE	FLOW	CONC	EMISSION RATE	FLOW	CONC	EMISSION RATE	FLOW	CONC	EMISSION RATE	FLOW	CONC	EMISSION RATE
HR , MIN	CFS	MG/L	LB/SEC	CFS	MG/L	LB/SEC	CFS	MG/L	LB/SEC	CFS	MG/L	LB/SEC	CFS	MG/L	LB/SEC
9,49	1,77	100,00	,011	1,60	100,00	,010	1,65	100,00	,010	1,65	100,00	,010	1,63	100,00	,010
9,53	1,53	100,00	,012	1,65	100,00	,012	1,78	100,00	,011	1,77	100,00	,011	1,79	100,00	,011
9,57	1,92	100,00	,012	1,92	100,00	,012	1,86	100,00	,012	1,82	100,00	,011	1,83	100,00	,011
10, 1	1,50	100,00	,012	1,53	100,00	,012	1,91	100,00	,012	1,88	100,00	,012	1,84	100,00	,012
10, 5	2,32	100,00	,015	1,58	100,00	,012	1,93	100,00	,012	1,89	100,00	,012	1,86	100,00	,012
10, 9	3,31	100,00	,021	2,32	100,00	,014	2,01	100,00	,013	1,92	100,00	,012	1,85	100,00	,012
10,13	4,56	100,00	,028	3,08	100,00	,019	2,30	100,00	,014	2,01	100,00	,013	1,92	100,00	,012
10,17	5,82	100,00	,036	4,24	100,00	,026	2,93	100,00	,018	2,26	100,00	,014	2,02	100,00	,013
10,21	7,00	100,00	,044	5,60	100,00	,035	3,96	100,00	,025	2,68	100,00	,017	2,27	100,00	,014
10,25	8,11	100,00	,051	6,95	100,00	,043	5,36	100,00	,034	3,75	100,00	,023	2,79	100,00	,017
10,29	9,22	100,00	,058	8,17	100,00	,051	6,87	100,00	,043	5,05	100,00	,032	3,71	100,00	,023
10,33	10,35	100,00	,065	9,29	100,00	,058	8,22	100,00	,051	6,65	100,00	,042	5,02	100,00	,031
10,37	11,45	100,00	,072	10,48	100,00	,065	9,41	100,00	,059	8,15	100,00	,051	6,55	100,00	,041
10,41	12,63	100,00	,079	11,54	100,00	,072	10,51	100,00	,066	9,47	100,00	,059	8,05	100,00	,050
10,45	13,76	100,00	,086	12,70	100,00	,079	11,62	100,00	,073	10,64	100,00	,066	9,42	100,00	,059
10,49	14,86	100,00	,093	13,86	100,00	,087	12,77	100,00	,080	11,77	100,00	,073	10,65	100,00	,066
10,53	16,22	100,00	,102	14,99	100,00	,094	13,93	100,00	,087	12,90	100,00	,081	11,82	100,00	,074
10,57	17,12	100,00	,107	16,12	100,00	,101	15,07	100,00	,094	14,04	100,00	,088	12,96	100,00	,081
11, 1	18,20	100,00	,114	17,22	100,00	,108	16,21	100,00	,101	15,16	100,00	,095	14,13	100,00	,088
11, 5	18,10	100,00	,113	18,03	100,00	,113	17,26	100,00	,108	16,31	100,00	,102	15,28	100,00	,095
11, 9	17,10	100,00	,107	17,69	100,00	,112	17,85	100,00	,111	17,25	100,00	,108	16,36	100,00	,102
11,13	15,52	100,00	,099	16,99	100,00	,106	17,66	100,00	,110	17,72	100,00	,111	17,18	100,00	,107
11,17	14,78	100,00	,092	15,85	100,00	,099	16,85	100,00	,105	17,53	100,00	,109	17,51	100,00	,109
11,21	13,66	100,00	,085	14,70	100,00	,092	15,75	100,00	,098	16,75	100,00	,105	17,26	100,00	,108
11,25	12,54	100,00	,078	13,57	100,00	,085	14,61	100,00	,091	15,67	100,00	,098	16,52	100,00	,103
11,29	11,41	100,00	,071	12,45	100,00	,078	13,49	100,00	,084	14,54	100,00	,091	15,52	100,00	,097
11,33	10,30	100,00	,064	11,34	100,00	,071	12,37	100,00	,077	13,41	100,00	,084	14,43	100,00	,090
11,37	9,18	100,00	,057	10,23	100,00	,064	11,26	100,00	,070	12,30	100,00	,077	13,32	100,00	,083
11,41	8,27	100,00	,050	9,13	100,00	,057	10,17	100,00	,063	11,19	100,00	,070	12,22	100,00	,076
11,45	6,96	100,00	,043	8,05	100,00	,050	9,09	100,00	,057	10,11	100,00	,063	11,13	100,00	,069
11,49	5,86	100,00	,037	6,97	100,00	,044	8,03	100,00	,050	9,05	100,00	,057	10,06	100,00	,063
11,53	4,76	100,00	,030	5,90	100,00	,037	6,98	100,00	,044	8,01	100,00	,050	9,01	100,00	,056
11,57	3,68	100,00	,023	4,85	100,00	,030	5,95	100,00	,037	6,99	100,00	,044	8,00	100,00	,050
12, 1	2,62	100,00	,016	3,83	100,00	,024	4,94	100,00	,031	5,99	100,00	,037	7,00	100,00	,044
12, 5	2,20	100,00	,012	2,91	100,00	,018	3,97	100,00	,025	5,02	100,00	,031	6,03	100,00	,038
12, 9	1,66	100,00	,012	2,33	100,00	,015	3,16	100,00	,020	4,12	100,00	,026	5,10	100,00	,032
12,13	1,65	100,00	,012	2,03	100,00	,013	2,58	100,00	,016	3,36	100,00	,021	4,26	100,00	,027
12,17	1,66	100,00	,012	1,91	100,00	,012	2,21	100,00	,014	2,76	100,00	,017	3,55	100,00	,022
12,21	1,67	100,00	,012	1,87	100,00	,012	2,01	100,00	,013	2,36	100,00	,015	2,99	100,00	,019
12,25	1,68	100,00	,012	1,86	100,00	,012	1,91	100,00	,012	2,13	100,00	,013	2,56	100,00	,016
12,29	1,68	100,00	,012	1,87	100,00	,012	1,87	100,00	,012	1,98	100,00	,012	2,25	100,00	,014
12,33	1,66	100,00	,012	1,87	100,00	,012	1,86	100,00	,012	1,92	100,00	,012	2,16	100,00	,013
12,37	1,68	100,00	,012	1,88	100,00	,012	1,87	100,00	,012	1,87	100,00	,012	1,99	100,00	,012
12,41	1,68	100,00	,012	1,88	100,00	,012	1,87	100,00	,012	1,86	100,00	,012	1,92	100,00	,012
12,45	1,68	100,00	,012	1,86	100,00	,012	1,86	100,00	,012	1,86	100,00	,012	1,89	100,00	,012
12,49	1,68	100,00	,012	1,88	100,00	,012	1,88	100,00	,012	1,87	100,00	,012	1,88	100,00	,012

12.53	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.87	100.00	.012	1.87	100.00	.012
12.57	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012
13. 1	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012
13. 5	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012
13. 9	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012
13.13	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012
13.17	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012
13.21	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012
13.25	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012
13.29	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012
13.33	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012
13.37	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012
13.41	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012
13.45	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012
13.49	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012
13.53	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012
13.57	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012
14. 1	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012
14. 5	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012
14. 9	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012
14.13	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012

BATTELLE -- TRANSPORT QUALITY MODEL RE-RUNS HYPOTHETICAL
2 FT PIPE SLOPE=.005 2-HR HYDROGRAPH

WATER RESOURCES ENGINEERS, INC.
WALNUT CREEK, CALIFORNIA
STORM DRAINAGE QUALITY MODEL

* T I M E H I S T O R Y O F S U S P E N D E D S O L I D S *

TIME	JUNCTION 106			JUNCTION 221			JUNCTION 222			JUNCTION 223			JUNCTION 224		
	FLOW	CONC	EMISSION RATE	FLOW	CONC	EMISSION RATE	FLOW	CONC	EMISSION RATE	FLOW	CONC	EMISSION RATE	FLOW	CONC	EMISSION RATE
HR. MIN	CFS	MG/L	LB/SEC	CFS	MG/L	LB/SEC	CFS	MG/L	LB/SEC	CFS	MG/L	LB/SEC	CFS	MG/L	LB/SEC
9.45	1.63	100.00	.010	.00	100.00	.000	1.79	100.00	.011	.00	100.00	.000	.67	100.00	.004
9.53	1.75	100.00	.011	.00	100.00	.000	1.95	100.00	.012	.00	100.00	.000	.56	100.00	.006
9.57	1.83	100.00	.011	.00	100.00	.000	1.95	100.00	.012	.00	100.00	.000	1.10	100.00	.007
10. 1	1.84	100.00	.012	.00	100.00	.000	1.94	100.00	.012	.00	100.00	.000	1.16	100.00	.007
10. 5	1.86	100.00	.012	.00	100.00	.000	2.36	100.00	.015	.00	100.00	.000	1.27	100.00	.008
10. 9	1.89	100.00	.012	.00	100.00	.000	3.35	100.00	.021	.00	100.00	.000	1.45	100.00	.009
10.13	1.92	100.00	.012	.00	100.00	.000	4.52	100.00	.028	.00	100.00	.000	1.76	100.00	.011
10.17	2.02	100.00	.013	.00	100.00	.000	5.74	100.00	.036	.00	100.00	.000	2.21	100.00	.014
10.21	2.27	100.00	.014	.00	100.00	.000	6.98	100.00	.044	.00	100.00	.000	2.81	100.00	.018
10.25	2.75	100.00	.017	.00	100.00	.000	8.15	100.00	.051	.00	100.00	.000	3.57	100.00	.022
10.29	3.71	100.00	.023	.00	100.00	.000	9.30	100.00	.058	.00	100.00	.000	4.45	100.00	.028
10.33	5.02	100.00	.031	.00	100.00	.000	10.45	100.00	.065	.00	100.00	.000	5.46	100.00	.034
10.37	6.55	100.00	.041	.00	100.00	.000	11.58	100.00	.072	.00	100.00	.000	6.56	100.00	.041
10.41	8.05	100.00	.050	.00	100.00	.000	12.70	100.00	.079	.00	100.00	.000	7.70	100.00	.048
10.45	9.42	100.00	.059	.00	100.00	.000	13.81	100.00	.086	.00	100.00	.000	8.87	100.00	.055
10.49	10.65	100.00	.066	.00	100.00	.000	14.92	100.00	.093	.00	100.00	.000	10.05	100.00	.063
10.53	11.82	100.00	.074	.00	100.00	.000	16.01	100.00	.100	.00	100.00	.000	11.21	100.00	.070
10.57	12.96	100.00	.081	.00	100.00	.000	17.10	100.00	.107	.00	100.00	.000	12.33	100.00	.077
11. 1	14.13	100.00	.088	.00	100.00	.000	18.10	100.00	.113	.00	100.00	.000	13.26	100.00	.083
11. 5	15.20	100.00	.095	.00	100.00	.000	18.02	100.00	.113	.00	100.00	.000	14.08	100.00	.088
11. 9	16.36	100.00	.102	.00	100.00	.000	17.05	100.00	.106	.00	100.00	.000	14.56	100.00	.091
11.13	17.10	100.00	.107	.00	100.00	.000	15.93	100.00	.099	.00	100.00	.000	14.82	100.00	.093
11.17	17.51	100.00	.109	.00	100.00	.000	14.81	100.00	.092	.00	100.00	.000	14.85	100.00	.093
11.21	17.00	100.00	.106	.00	100.00	.000	13.69	100.00	.085	.00	100.00	.000	14.80	100.00	.092
11.25	16.52	100.00	.103	.00	100.00	.000	12.57	100.00	.079	.00	100.00	.000	14.56	100.00	.091
11.29	15.52	100.00	.097	.00	100.00	.000	11.46	100.00	.072	.00	100.00	.000	14.23	100.00	.089
11.33	14.43	100.00	.090	.00	100.00	.000	10.34	100.00	.065	.00	100.00	.000	13.78	100.00	.086
11.37	13.32	100.00	.083	.00	100.00	.000	9.26	100.00	.058	.00	100.00	.000	13.12	100.00	.082
11.41	12.22	100.00	.076	.00	100.00	.000	8.11	100.00	.051	.00	100.00	.000	12.35	100.00	.077
11.45	11.13	100.00	.069	.00	100.00	.000	6.98	100.00	.044	.00	100.00	.000	11.28	100.00	.070
11.49	10.00	100.00	.063	.00	100.00	.000	5.86	100.00	.037	.00	100.00	.000	10.25	100.00	.064
11.53	9.01	100.00	.056	.00	100.00	.000	4.76	100.00	.032	.00	100.00	.000	9.20	100.00	.057
11.57	8.00	100.00	.050	.00	100.00	.000	3.67	100.00	.023	.00	100.00	.000	8.15	100.00	.051
12. 1	7.00	100.00	.044	.00	100.00	.000	2.60	100.00	.016	.00	100.00	.000	7.11	100.00	.044
12. 5	6.03	100.00	.038	.00	100.00	.000	1.97	100.00	.012	.00	100.00	.000	6.12	100.00	.038
12. 9	5.10	100.00	.032	.00	100.00	.000	1.85	100.00	.012	.00	100.00	.000	5.30	100.00	.033
12.13	4.26	100.00	.027	.00	100.00	.000	1.83	100.00	.011	.00	100.00	.000	4.66	100.00	.029
12.17	3.55	100.00	.022	.00	100.00	.000	1.83	100.00	.011	.00	100.00	.000	4.15	100.00	.026
12.21	2.95	100.00	.019	.00	100.00	.000	1.84	100.00	.011	.00	100.00	.000	3.75	100.00	.023
12.25	2.58	100.00	.016	.00	100.00	.000	1.84	100.00	.011	.00	100.00	.000	3.43	100.00	.021
12.29	2.29	100.00	.014	.00	100.00	.000	1.84	100.00	.012	.00	100.00	.000	3.17	100.00	.020
12.33	2.10	100.00	.013	.00	100.00	.000	1.85	100.00	.012	.00	100.00	.000	2.96	100.00	.018
12.37	1.95	100.00	.012	.00	100.00	.000	1.85	100.00	.012	.00	100.00	.000	2.75	100.00	.017
12.41	1.92	100.00	.012	.00	100.00	.000	1.86	100.00	.012	.00	100.00	.000	2.64	100.00	.017
12.45	1.89	100.00	.012	.00	100.00	.000	1.86	100.00	.012	.00	100.00	.000	2.53	100.00	.016
12.49	1.88	100.00	.012	.00	100.00	.000	1.86	100.00	.012	.00	100.00	.000	2.43	100.00	.015

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12.53	1.87	100.00	.012	.02	100.00	.000	1.86	100.00	.012	.00	100.00	.000	2.35	100.00	.015
12.57	1.88	100.00	.012	.00	100.00	.000	1.87	100.00	.012	.00	100.00	.000	2.20	100.00	.014
13. 1	1.88	100.00	.012	.00	100.00	.000	1.87	100.00	.012	.00	100.00	.000	2.22	100.00	.014
13. 5	1.88	100.00	.012	.02	100.00	.000	1.87	100.00	.012	.00	100.00	.000	2.17	100.00	.014
13. 9	1.88	100.00	.012	.00	100.00	.000	1.87	100.00	.012	.00	100.00	.000	2.13	100.00	.013
13.13	1.88	100.00	.012	.00	100.00	.000	1.87	100.00	.012	.00	100.00	.000	2.05	100.00	.013
13.17	1.88	100.00	.212	.00	100.00	.000	1.87	100.00	.012	.00	100.00	.000	2.00	100.00	.013
13.21	1.88	100.00	.012	.00	100.22	.002	1.87	100.00	.012	.00	100.00	.000	2.04	100.00	.013
13.25	1.88	100.00	.012	.00	100.00	.000	1.87	100.00	.012	.00	100.00	.000	2.01	100.00	.013
13.29	1.88	100.00	.012	.00	100.00	.020	1.88	100.00	.012	.00	100.00	.000	2.00	100.00	.012
13.33	1.88	100.00	.012	.00	100.00	.000	1.88	100.00	.012	.00	100.00	.000	1.58	100.00	.012
13.37	1.88	100.00	.012	.00	100.00	.000	1.88	100.00	.012	.00	100.00	.000	1.57	100.00	.012
13.41	1.88	100.00	.012	.00	100.00	.000	1.88	100.00	.012	.00	100.00	.000	1.55	100.00	.012
13.45	1.88	100.00	.012	.00	100.00	.000	1.86	100.00	.012	.00	100.00	.000	1.54	100.00	.012
13.49	1.88	100.00	.012	.20	100.00	.000	1.88	100.00	.012	.00	100.00	.000	1.53	100.00	.012
13.53	1.88	100.00	.012	.00	100.00	.000	1.86	100.00	.012	.00	100.00	.000	1.53	100.00	.012
13.57	1.88	100.00	.012	.00	100.00	.000	1.88	100.00	.012	.00	100.00	.000	1.52	100.00	.012
14. 1	1.88	100.00	.012	.00	100.00	.000	1.88	100.00	.012	.00	100.00	.000	1.51	100.00	.012
14. 5	1.88	100.00	.012	.00	100.00	.000	1.88	100.00	.012	.00	100.00	.000	1.51	100.00	.012
14. 9	1.88	100.00	.012	.00	100.00	.000	1.88	100.00	.012	.00	100.00	.000	1.51	100.00	.012
14.13	1.88	100.00	.012	.00	100.00	.000	1.88	100.00	.012	.00	100.00	.220	1.50	100.00	.012

BATTELLE -- TRANSIENT QUALITY MODEL   HYPOTHETICAL
2 FT PIPE   SUSPEND.SOLID   2-HR HYDROGRAPH

WATER RESOURCES ENGINEERS, INC.
WALNUT CREEK, CALIFORNIA
STORM DRAINAGE QUALITY MODEL

T I M E   H I S T O R Y   O F
S U S P E N D E D   S O L I D S

TIME HR. MIN	JUNCTION 201 FLOW CFS	CONC MG/L	EMISSION RATE LB/SEC	JUNCTION 202 FLOW CFS	CONC MG/L	EMISSION RATE LB/SEC	JUNCTION 203 FLOW CFS	CONC MG/L	EMISSION RATE LB/SEC	JUNCTION 204 FLOW CFS	CONC MG/L	EMISSION RATE LB/SEC	JUNCTION 205 FLOW CFS	CONC MG/L	EMISSION RATE LB/SEC
9.49	1.17	100.00	.027	1.58	100.00	.010	1.64	100.00	.010	1.64	100.00	.010	1.75	100.00	.011
9.53	.58	100.00	.006	1.43	100.00	.005	1.88	100.00	.010	1.72	100.00	.011	2.06	100.00	.012
9.57	1.61	100.00	.008	1.24	100.00	.006	1.55	100.00	.010	1.60	100.00	.010	1.55	100.00	.010
10. 1	1.65	100.00	.027	1.14	100.00	.007	1.35	100.00	.005	1.54	100.00	.011	1.85	100.00	.010
10. 5	1.17	100.00	.007	1.12	100.00	.007	1.27	100.00	.006	1.41	100.00	.005	1.60	100.00	.011
10. 9	1.30	100.00	.008	1.15	100.00	.007	1.28	100.00	.007	1.30	100.00	.006	1.52	100.00	.005
10.13	1.51	100.00	.009	1.23	100.00	.006	1.18	100.00	.007	1.23	100.00	.006	1.36	100.00	.005
10.17	1.88	100.00	.012	1.48	100.00	.005	1.23	100.00	.008	1.20	100.00	.007	1.26	100.00	.006
10.21	2.27	100.00	.015	1.65	100.00	.011	1.36	100.00	.006	1.22	100.00	.006	1.22	100.00	.006
10.25	3.07	100.00	.019	2.16	100.00	.013	1.60	100.00	.010	1.31	100.00	.006	1.22	100.00	.006
10.29	3.62	100.00	.024	2.83	100.00	.018	2.01	100.00	.013	1.58	100.00	.005	1.28	100.00	.006
10.33	4.51	100.00	.031	3.71	100.00	.023	2.63	100.00	.016	1.85	100.00	.012	1.45	100.00	.005
10.37	5.55	100.00	.037	4.75	100.00	.030	3.50	100.00	.022	2.41	100.00	.015	1.76	100.00	.011
10.41	7.13	100.00	.044	5.51	100.00	.037	4.60	100.00	.029	3.23	100.00	.020	2.31	100.00	.014
10.45	8.30	100.00	.052	7.11	100.00	.044	5.84	100.00	.036	4.33	100.00	.027	3.17	100.00	.020
10.49	9.45	100.00	.059	8.31	100.00	.052	7.12	100.00	.044	5.62	100.00	.035	4.37	100.00	.027
10.53	10.67	100.00	.067	9.52	100.00	.059	8.36	100.00	.052	6.54	100.00	.043	5.78	100.00	.036
10.57	11.82	100.00	.074	10.73	100.00	.067	9.59	100.00	.060	8.25	100.00	.051	7.11	100.00	.044
11. 1	12.91	100.00	.081	11.85	100.00	.074	10.80	100.00	.067	9.55	100.00	.060	8.30	100.00	.052
11. 5	13.80	100.00	.086	12.96	100.00	.081	11.96	100.00	.075	10.85	100.00	.068	9.55	100.00	.060
11. 9	14.30	100.00	.092	13.81	100.00	.086	12.95	100.00	.081	12.07	100.00	.075	10.70	100.00	.067
11.13	14.72	100.00	.092	14.40	100.00	.090	13.79	100.00	.086	13.10	100.00	.082	11.50	100.00	.074
11.17	14.87	100.00	.093	14.74	100.00	.092	14.35	100.00	.090	13.56	100.00	.087	12.55	100.00	.081
11.21	14.85	100.00	.093	14.88	100.00	.093	14.68	100.00	.092	14.45	100.00	.090	13.12	100.00	.088
11.25	14.85	100.00	.092	14.85	100.00	.093	14.82	100.00	.093	14.78	100.00	.092	14.30	100.00	.091
11.29	14.40	100.00	.092	14.66	100.00	.092	14.79	100.00	.092	14.88	100.00	.093	14.67	100.00	.092
11.33	14.00	100.00	.087	14.30	100.00	.092	14.61	100.00	.091	14.81	100.00	.092	14.75	100.00	.092
11.37	13.45	100.00	.084	13.64	100.00	.087	14.36	100.00	.090	14.60	100.00	.091	14.74	100.00	.092
11.41	12.68	100.00	.079	13.35	100.00	.083	13.86	100.00	.087	14.20	100.00	.089	14.55	100.00	.091
11.45	11.75	100.00	.073	12.58	100.00	.076	13.25	100.00	.083	13.75	100.00	.088	14.22	100.00	.089
11.49	10.74	100.00	.067	11.60	100.00	.073	12.48	100.00	.076	13.15	100.00	.082	13.75	100.00	.088
11.53	9.71	100.00	.061	10.67	100.00	.067	11.57	100.00	.072	12.37	100.00	.077	13.12	100.00	.082
11.57	8.66	100.00	.054	9.65	100.00	.060	10.61	100.00	.066	11.46	100.00	.072	12.35	100.00	.077
12. 1	7.63	100.00	.048	8.63	100.00	.054	9.61	100.00	.060	10.45	100.00	.066	11.47	100.00	.072
12. 5	6.62	100.00	.041	7.62	100.00	.048	8.61	100.00	.054	9.60	100.00	.055	10.53	100.00	.066
12. 9	5.73	100.00	.036	6.60	100.00	.042	7.64	100.00	.048	8.52	100.00	.053	9.50	100.00	.060
12.13	5.00	100.00	.031	5.81	100.00	.036	6.72	100.00	.042	7.57	100.00	.047	8.60	100.00	.054
12.17	4.43	100.00	.028	5.10	100.00	.032	5.90	100.00	.037	6.65	100.00	.042	7.67	100.00	.048
12.21	3.97	100.00	.025	4.52	100.00	.028	5.20	100.00	.032	5.92	100.00	.037	6.81	100.00	.042
12.25	3.61	100.00	.023	4.06	100.00	.025	4.63	100.00	.029	5.22	100.00	.033	6.13	100.00	.038
12.29	3.32	100.00	.021	3.69	100.00	.023	4.17	100.00	.026	4.66	100.00	.029	5.35	100.00	.033
12.33	3.05	100.00	.019	3.35	100.00	.021	3.79	100.00	.024	4.20	100.00	.026	4.75	100.00	.030
12.37	2.85	100.00	.018	3.15	100.00	.020	3.48	100.00	.022	3.83	100.00	.024	4.31	100.00	.027
12.41	2.73	100.00	.017	2.95	100.00	.018	3.23	100.00	.020	3.55	100.00	.022	3.70	100.00	.023
12.45	2.62	100.00	.016	2.78	100.00	.017	3.01	100.00	.019	3.33	100.00	.021	3.47	100.00	.022
12.49	2.49	100.00	.016	2.64	100.00	.016	2.83	100.00	.018	3.12	100.00	.019	3.26	100.00	.021

PARTELE -- TRANSPORT QUALITY MODEL RESULTS HYPOTHETICAL
x AT MILE SUSPENDED SOLIDS 2-HR HYDROGRAPH

WATER RESOURCES ENGINEERS, INC.
WALNUT CREEK, CALIFORNIA
STEADY STATE QUALITY MODEL

TIME HISTORY OF SUSPENDED SOLIDS

	JUNCTION 220			JUNCTION 219			JUNCTION 211			JUNCTION
9.45	.55	100.00	.005	7.43	100.00	.046	7.43	100.00	.046	
9.53	1.47	100.00	.028	2.56	100.00	.015	2.56	100.00	.015	
9.57	1.57	100.00	.019	1.54	100.00	.012	1.54	100.00	.012	
10. 1	1.72	100.00	.011	1.78	100.00	.011	1.78	100.00	.011	
10. 5	1.75	100.00	.011	1.77	100.00	.011	1.77	100.00	.011	
10. 9	1.85	100.00	.011	1.75	100.00	.011	1.75	100.00	.011	
10.13	1.87	100.00	.012	1.68	100.00	.010	1.68	100.00	.010	
10.17	1.49	100.00	.009	1.58	100.00	.010	1.58	100.00	.010	
10.21	1.35	100.00	.008	1.48	100.00	.009	1.48	100.00	.009	
10.25	1.32	100.00	.008	1.39	100.00	.009	1.39	100.00	.009	
10.29	1.29	100.00	.008	1.32	99.95	.008	1.32	100.00	.008	
10.33	1.31	100.00	.008	1.30	94.12	.008	1.30	100.07	.008	
10.37	1.41	100.00	.009	1.34	-149.46	-.012	1.34	100.33	.009	
10.41	1.64	100.00	.010	1.47	*******	-.155	1.47	208.58	.015	
10.45	2.04	100.00	.013	1.74	*******	-.234	1.74	397.55	.043	
10.49	2.56	100.00	.016	2.19	-445.21	-.061	2.19	238.03	.036	
10.53	3.01	100.00	.023	2.75	73.00	.013	2.75	111.31	.019	
10.57	3.27	100.00	.031	3.33	95.72	.021	3.33	100.10	.021	
11. 1	3.54	100.00	.043	3.80	100.00	.024	3.80	100.00	.024	
11. 5	3.48	100.00	.053	4.15	100.00	.026	4.15	100.00	.026	
11. 9	3.54	100.00	.062	4.41	100.00	.028	4.41	100.00	.028	
11.13	10.48	100.00	.005	4.60	100.00	.029	4.60	100.00	.029	
11.17	12.53	100.00	.006	4.65	100.00	.029	4.65	100.00	.029	
11.21	10.67	100.00	.006	4.67	100.00	.029	4.67	100.00	.029	
11.25	10.70	100.00	.007	4.70	100.00	.029	4.70	100.00	.029	
11.29	10.80	100.00	.007	4.74	100.00	.030	4.74	100.00	.030	
11.33	10.91	100.00	.008	4.78	100.00	.030	4.78	100.00	.030	
11.37	11.02	100.00	.009	4.81	100.00	.030	4.81	100.00	.030	
11.41	11.12	100.00	.009	4.85	100.00	.030	4.85	100.00	.030	
11.45	11.21	100.00	.010	4.89	100.00	.031	4.89	100.00	.031	
11.49	11.29	100.00	.010	4.91	100.00	.031	4.91	100.00	.031	
11.53	11.35	100.00	.011	4.94	100.00	.031	4.94	100.00	.031	
11.57	11.38	100.00	.011	4.95	100.00	.031	4.95	100.00	.031	
12. 1	11.34	100.00	.011	4.96	100.00	.031	4.96	100.00	.031	
12. 5	11.38	100.00	.011	4.96	100.00	.031	4.96	100.00	.031	
12. 9	11.34	100.00	.011	4.95	100.00	.031	4.95	100.00	.031	
12.13	11.28	100.00	.010	4.93	100.00	.031	4.93	100.00	.031	
12.17	11.15	100.00	.010	4.91	100.00	.031	4.91	100.00	.031	
12.21	11.05	100.00	.009	4.87	100.00	.030	4.87	100.00	.030	
12.25	10.97	100.00	.008	4.83	100.00	.030	4.83	100.00	.030	
12.29	10.93	100.00	.008	4.79	100.00	.030	4.79	100.00	.030	
12.33	10.88	100.00	.007	4.74	100.00	.030	4.74	100.00	.030	
12.37	10.82	100.00	.006	4.68	100.00	.029	4.68	100.00	.029	
12.41	9.59	100.00	.042	4.32	100.00	.027	4.32	100.00	.027	
12.45	4.51	100.00	.028	3.66	100.00	.023	3.66	100.00	.023	
12.49	3.83	100.00	.024	3.33	100.00	.021	3.33	100.00	.021	
12.53	3.48	100.00	.022	3.18	100.00	.020	3.18	100.00	.020	
12.57	3.45	100.00	.022	3.04	100.00	.019	3.04	100.00	.019	
13. 1	3.38	100.00	.019	2.95	100.00	.018	2.95	100.00	.018	

12. 5	2.50	100.00	.016	2.67	100.00	.016	2.67	100.00	.016
12. 9	2.77	100.00	.017	2.75	100.00	.017	2.75	100.00	.017
13.13	2.67	100.00	.017	2.72	100.00	.017	2.72	100.00	.017
13.17	2.60	100.00	.016	2.65	100.00	.017	2.65	100.00	.017
13.21	2.51	100.00	.016	2.57	100.00	.016	2.57	100.00	.016
13.25	2.42	100.00	.015	2.45	100.00	.016	2.45	100.00	.016
13.29	2.34	100.00	.015	2.40	100.00	.015	2.40	100.00	.015
13.33	2.27	100.00	.014	2.32	100.00	.015	2.32	100.00	.015
13.37	2.21	100.00	.014	2.26	100.00	.014	2.26	100.00	.014
13.41	2.16	100.00	.013	2.20	100.00	.014	2.20	100.00	.014
13.45	2.12	100.00	.013	2.15	100.00	.013	2.15	100.00	.013
13.49	2.05	100.00	.013	2.11	100.00	.013	2.11	100.00	.013
13.53	2.00	100.00	.013	2.08	100.00	.013	2.08	100.00	.013
13.57	2.03	100.00	.013	2.05	100.00	.013	2.05	100.00	.013
14. 1	2.01	100.00	.013	2.03	100.00	.013	2.03	100.00	.013
14. 5	1.96	100.00	.012	2.01	100.00	.013	2.01	100.00	.013
14. 9	1.98	100.00	.012	1.99	100.00	.012	1.99	100.00	.012
14.13	1.96	100.00	.012	1.97	100.00	.012	1.97	100.00	.012

BATTELLE -- TRANSIENT QUALITY MODEL REMARKS HYPOTHETICAL

WATER RESOURCES ENGINEERS, INC.
WALNUT CREEK, CALIFORNIA
STORM DRAINAGE QUALITY MODEL

TIME HISTORY OF SPILLABLE SOLIDS

TIME HR. MIN	JUNCTION 101 FLOW CFS	JUNCTION 101 CONC MG/L	JUNCTION 101 EMISSION RATE LB/SEC	JUNCTION 102 FLOW CFS	JUNCTION 102 CONC MG/L	JUNCTION 102 EMISSION RATE LB/SEC	JUNCTION 103 FLOW CFS	JUNCTION 103 CONC MG/L	JUNCTION 103 EMISSION RATE LB/SEC	JUNCTION 104 FLOW CFS	JUNCTION 104 CONC MG/L	JUNCTION 104 EMISSION RATE LB/SEC	JUNCTION 105 FLOW CFS	JUNCTION 105 CONC MG/L	JUNCTION 105 EMISSION RATE LB/SEC
9.45	1.77	.02	.002	1.66	.00	.000	1.65	.00	.000	1.65	.00	.000	1.63	.00	.000
9.53	1.63	.00	.000	1.65	.00	.000	1.76	.00	.000	1.77	.00	.000	1.75	.00	.000
9.57	1.58	.00	.000	1.62	.00	.000	1.80	.00	.000	1.82	.00	.000	1.83	.00	.000
10. 1	1.67	.42	.026	1.63	.10	.000	1.91	.00	.000	1.80	.00	.000	1.84	.00	.000
10. 5	2.32	6.07	.021	1.68	2.55	.000	1.93	.25	.000	1.85	.01	.000	1.86	.00	.000
10. 9	3.31	13.73	.083	2.32	7.70	.001	2.01	1.68	.000	1.62	.27	.000	1.85	.02	.000
10.13	4.50	29.00	.000	3.08	14.15	.003	2.36	5.59	.001	2.01	1.54	.000	1.92	.25	.000
10.17	5.82	26.67	.010	4.24	20.88	.006	2.93	11.86	.002	2.26	4.05	.001	2.02	1.22	.000
10.21	7.66	33.33	.015	5.66	27.65	.016	3.58	18.53	.005	2.68	6.65	.002	2.27	3.73	.001
10.25	8.11	42.00	.020	6.55	34.49	.015	5.38	25.42	.006	3.75	10.22	.004	2.76	6.27	.001
10.29	9.62	46.67	.027	8.17	41.39	.021	6.87	32.48	.014	5.65	23.15	.007	3.71	14.48	.003
10.33	10.35	53.33	.034	9.29	48.31	.028	8.22	39.58	.020	6.65	30.26	.013	5.02	21.41	.007
10.37	11.46	60.00	.043	10.48	55.28	.036	9.41	46.64	.027	8.15	37.44	.015	6.55	28.74	.010
10.41	12.03	66.67	.053	11.54	62.24	.045	10.51	53.77	.035	9.47	44.74	.020	8.05	36.66	.013
10.45	13.70	73.33	.063	12.78	68.85	.055	11.62	60.82	.044	10.64	52.67	.030	9.48	43.37	.021
10.49	14.66	80.00	.074	13.86	75.66	.065	12.77	67.79	.054	11.77	59.35	.044	10.65	50.76	.034
10.53	16.09	86.67	.087	14.99	82.43	.077	13.93	74.71	.065	12.98	66.84	.054	11.82	58.18	.043
10.57	17.12	93.33	.100	16.12	89.21	.090	15.07	81.61	.077	14.04	73.64	.065	12.98	65.51	.053
11. 1	18.20	96.17	.113	17.22	95.58	.103	16.21	88.47	.090	15.18	80.67	.078	14.13	72.74	.064
11. 5	18.19	93.33	.126	18.23	94.85	.107	17.26	93.78	.101	16.31	87.56	.086	15.26	79.65	.072
11. 9	17.10	86.67	.093	17.65	90.11	.101	17.65	93.55	.104	17.25	92.67	.095	16.36	86.56	.088
11.13	15.54	80.00	.079	16.59	84.15	.085	17.66	89.54	.099	17.72	92.43	.102	17.16	90.73	.092
11.17	14.78	73.33	.068	15.65	77.79	.077	16.85	84.78	.089	17.83	85.66	.098	17.51	91.42	.100
11.21	13.66	66.67	.057	14.78	71.31	.065	15.75	78.76	.077	16.78	88.85	.086	17.26	89.25	.092
11.25	12.54	60.00	.047	13.57	64.82	.055	14.61	72.55	.066	15.67	75.64	.078	16.12	83.34	.082
11.29	11.41	53.33	.036	12.45	58.34	.045	13.49	66.20	.056	14.54	73.65	.067	15.52	81.34	.074
11.33	10.30	46.67	.034	11.34	51.89	.037	12.37	59.67	.046	13.41	67.63	.057	14.43	74.64	.067
11.37	9.19	40.00	.023	10.23	45.48	.026	11.26	53.73	.038	12.38	61.65	.047	13.32	65.62	.057
11.41	8.07	33.33	.017	9.13	39.11	.022	10.17	47.86	.030	11.19	55.81	.035	12.22	63.17	.049
11.45	6.96	26.67	.012	8.05	32.82	.016	9.09	41.47	.024	10.11	49.88	.031	11.13	57.36	.041
11.49	5.84	20.00	.007	6.97	26.61	.012	8.03	35.58	.018	9.05	43.72	.025	10.06	51.62	.034
11.53	4.73	13.33	.004	5.90	20.54	.008	6.98	29.88	.013	8.01	38.03	.019	9.01	46.03	.028
11.57	3.62	6.67	.002	4.85	14.66	.004	5.98	24.88	.009	6.95	32.54	.014	8.00	40.61	.024
12. 1	2.72	.42	.002	3.83	9.21	.002	4.94	18.78	.006	5.99	27.31	.010	7.02	35.42	.018
12. 5	2.64	.00	.000	2.91	5.08	.001	3.97	14.88	.003	5.02	22.43	.007	6.03	29.82	.011
12. 9	1.76	.00	.000	2.33	3.43	.000	3.16	10.33	.002	4.12	18.46	.005	5.14	25.05	.008
12.13	1.65	.00	.000	2.03	2.00	.000	2.58	7.34	.001	3.26	14.33	.003	4.26	21.54	.006
12.17	1.66	.00	.000	1.91	1.14	.000	2.21	5.02	.001	2.75	11.08	.002	3.55	18.24	.004
12.21	1.67	.00	.000	1.87	.65	.000	2.01	3.32	.000	2.36	8.31	.001	2.96	14.92	.003
12.25	1.66	.00	.000	1.86	.37	.000	1.91	2.14	.000	2.13	6.84	.001	2.66	11.96	.002
12.29	1.66	.00	.000	1.87	.21	.000	1.87	1.35	.000	1.96	4.26	.001	2.29	9.32	.001
12.33	1.66	.00	.000	1.87	.12	.000	1.86	.84	.000	1.68	2.53	.000	2.16	7.08	.001
12.37	1.65	.00	.000	1.88	.07	.000	1.87	.52	.000	1.67	1.56	.000	1.96	5.62	.001
12.41	1.66	.00	.000	1.88	.04	.000	1.87	.32	.000	1.66	1.21	.000	1.82	3.77	.000
12.45	1.66	.00	.000	1.88	.02	.000	1.88	.20	.000	1.66	.00	.000	1.85	2.66	.000
12.49	1.66	.00	.000	1.88	.01	.000	1.88	.12	.000	1.67	.00	.000	1.88	1.88	.000

PARTICLE -- TRANSPORT QUALITY MODEL, RESERVOIR HYPOTHETICAL
4 FT PIPE SLOPE=0.005 4-PER MICROGRAPH

PAIUTE RESOURCES ENGINEERS, INC.
WALNUT CREEK, CALIFORNIA
STORM DRAINAGE QUALITY MODEL

TIME HISTORY OF SETTLEABLE SOLIDS

TIME	JUNCTION 100			JUNCTION 221			JUNCTION 222			JUNCTION 223			JUNCTION 224		
HR. . MIN	FLOW CFS	CONC MG/L	EMISSION RATE LB/SEC	FLOW CFS	CONC MG/L	EMISSION RATE LB/SEC	FLOW CFS	CONC MG/L	EMISSION RATE LB/SEC	FLOW CFS	CONC MG/L	EMISSION RATE LB/SEC	FLOW CFS	CONC MG/L	EMISSION RATE LB/SEC
9.45	1.53	.00	.002	.02	.00	.000	1,75	.00	.000	.02	.00	.000	.07	.00	.000
9.53	1.75	.00	.002	.00	.00	.000	1,95	.00	.000	.00	.00	.000	.56	.00	.000
9.57	1.83	.00	.002	.00	.00	.000	1,95	.00	.000	.00	.00	.000	1.10	.00	.000
10. 1	1.84	.00	.002	.00	.00	.000	1,54	.42	.000	.00	.00	.000	1.18	.03	.000
10. 5	1.88	.00	.000	.00	.00	.000	2,36	6,67	.001	.00	.00	.000	1.27	.05	.000
10. 9	1.86	.00	.000	.00	.00	.000	3,35	13,33	.003	.00	.00	.000	1.45	2.52	.000
10.13	1.92	.03	.000	.00	.00	.000	4,82	20,00	.000	.00	.00	.000	1.76	5.00	.001
10.17	2.12	.24	.000	.00	.00	.000	6,74	26,67	.010	.00	.00	.000	2.21	9.52	.001
10.21	2.27	1.10	.000	.00	.00	.000	8,98	33,33	.015	.00	.00	.000	2.81	14.58	.003
10.25	2.76	3.56	.001	.00	.00	.000	8,15	40,00	.020	.00	.00	.000	3.57	20.42	.005
10.29	3.71	8.72	.002	.00	.00	.000	9,38	46,67	.027	.00	.00	.000	4.45	26.16	.007
10.33	5.02	16.44	.005	.00	.01	.000	10,45	53,33	.030	.00	.00	.000	5.46	32.68	.011
10.37	6.55	24.69	.010	.00	.37	.000	11,58	60,00	.043	.00	.00	.000	6.66	38.11	.010
10.41	8.05	32.54	.017	.00	1.38	.000	12,70	66,67	.053	.00	.00	.000	7.78	44.25	.021
10.45	9.42	40.74	.024	.00	3.27	.000	13,81	73,33	.063	.00	.00	.000	8.87	51.47	.026
10.49	10.65	48.45	.032	.00	6.19	.000	14,92	80,00	.075	.00	.00	.000	10.05	58.70	.036
10.53	11.82	56.09	.041	.00	10.14	.000	16,01	86,67	.087	.00	.00	.000	11.21	65.11	.044
10.57	12.94	63.63	.052	.00	15.03	.000	17,10	93,33	.100	.00	.00	.000	12.33	65.82	.054
11. 1	14.13	71.03	.063	.00	20.72	.000	18,12	96,17	.113	.00	.00	.000	13.36	75.65	.063
11. 5	15.24	78.33	.075	.00	26.92	.000	18,02	93,33	.105	.00	.00	.000	14.68	75.92	.076
11. 9	16.26	85.41	.087	.00	32.94	.000	17,05	86,67	.092	.00	.00	.000	14.56	81.58	.074
11.13	17.18	92.35	.097	.00	38.25	.000	15,93	80,00	.000	.00	.00	.000	14.62	81.56	.075
11.17	17.51	91.75	.103	.00	42.62	.000	14,81	73,33	.000	.00	.00	.000	14.69	84.47	.075
11.21	17.46	90.24	.097	.00	46.85	.000	13,69	66,67	.057	.00	.00	.000	14.80	78.55	.073
11.25	16.52	86.52	.090	.00	48.63	.000	12,57	60,00	.047	.00	.00	.000	14.58	76.74	.065
11.29	15.52	82.57	.082	.00	50.51	.000	11,46	53,33	.038	.00	.00	.000	14.23	73.65	.055
11.33	14.43	77.53	.076	.00	51.80	.000	10,34	46,67	.036	.00	.00	.000	13.78	69.62	.051
11.37	13.32	71.66	.000	.00	52.65	.000	9,26	40,00	.023	.00	.00	.000	13.12	66.32	.054
11.41	12.22	65.73	.050	.00	53.15	.000	8,11	33,33	.017	.00	.00	.000	12.25	64.00	.048
11.45	11.13	59.56	.041	.00	53.42	.000	6,98	26,67	.012	.00	.00	.000	11.28	59.61	.042
11.49	10.07	53.89	.034	.00	53.52	.000	5,86	20,00	.007	.00	.00	.000	10.25	55.37	.035
11.53	9.21	48.17	.027	.00	53.54	.000	4,76	13,33	.004	.00	.00	.000	9.28	51.56	.030
11.57	8.48	42.52	.021	.00	53.53	.000	3,67	6,67	.002	.00	.00	.000	8.15	46.71	.023
12. 1	7.88	37.52	.017	.00	53.53	.000	2,66	.42	.000	.00	.00	.000	7.11	45.56	.020
12. 5	6.83	33.24	.013	.00	53.53	.000	1,97	.00	.000	.00	.00	.000	6.12	43.82	.017
12. 9	5.10	28.52	.009	.00	53.53	.000	1,85	.00	.000	.00	.00	.000	5.36	41.66	.014
12.13	4.20	25.64	.007	.00	53.53	.000	1,83	.00	.000	.00	.00	.000	4.66	39.74	.014
12.17	3.55	21.58	.005	.00	53.53	.000	1,83	.00	.000	.00	.00	.000	4.15	37.65	.014
12.21	2.56	16.49	.003	.00	53.53	.000	1,84	.00	.000	.00	.00	.000	3.75	35.53	.000
12.25	2.56	15.68	.003	.00	53.53	.000	1,84	.00	.000	.00	.00	.000	3.43	33.46	.007
12.29	2.45	13.10	.002	.00	53.53	.000	1,84	.00	.000	.00	.00	.000	3.17	31.33	.000
12.33	2.10	10.75	.001	.00	53.53	.000	1,85	.00	.000	.00	.00	.000	2.96	29.28	.005
12.37	1.96	8.83	.001	.00	53.53	.000	1,85	.00	.000	.00	.00	.000	2.76	27.25	.005
12.41	1.92	9.76	.001	.00	53.53	.000	1,86	.00	.000	.00	.00	.000	2.64	25.37	.004
12.45	1.85	9.17	.001	.00	53.53	.000	1,86	.00	.000	.00	.00	.000	2.53	23.52	.004
12.49	1.84	8.88	.001	.00	53.53	.000	1,86	.00	.000	.00	.00	.000	2.43	21.78	.003

12.53	1.07	2.02	.000	.00	53.53	.000	1.86	.00	.000	.00	.00	.000	2.35	22.12	.003
12.57	1.00	2.03	.000	.00	53.53	.000	1.87	.00	.000	.00	.00	.000	2.26	18.50	.003
13. 1	1.00	1.43	.000	.00	53.53	.000	1.87	.00	.000	.00	.00	.000	2.22	17.65	.002
13. 5	1.00	1.02	.000	.00	53.53	.000	1.87	.00	.000	.00	.00	.000	2.17	15.72	.002
13. 9	1.00	.65	.000	.00	53.53	.000	1.87	.00	.000	.00	.00	.000	2.13	14.45	.002
13.13	1.00	.47	.000	.00	53.53	.000	1.87	.00	.000	.00	.00	.000	2.09	13.20	.002
13.17	1.00	.32	.000	.00	53.53	.000	1.87	.00	.000	.00	.00	.000	2.06	12.10	.002
13.21	1.00	.21	.000	.00	53.53	.000	1.87	.00	.000	.00	.00	.000	2.04	11.15	.001
13.25	1.00	.14	.000	.00	53.53	.000	1.87	.00	.000	.00	.00	.000	2.01	10.21	.001
13.29	1.00	.09	.000	.00	53.53	.000	1.88	.00	.000	.00	.00	.000	2.00	9.35	.001
13.33	1.00	.06	.000	.00	53.53	.000	1.88	.00	.000	.00	.00	.000	1.58	8.55	.001
13.37	1.00	.04	.000	.00	53.53	.000	1.88	.00	.000	.00	.00	.000	1.57	7.62	.001
13.41	1.00	.03	.000	.00	53.53	.000	1.88	.00	.000	.00	.00	.000	1.55	7.15	.001
13.45	1.00	.02	.000	.00	53.53	.000	1.88	.00	.000	.00	.00	.000	1.54	6.53	.001
13.49	1.00	.01	.000	.00	53.53	.000	1.88	.00	.000	.00	.00	.000	1.53	5.57	.001
13.53	1.00	.01	.000	.00	53.53	.000	1.88	.00	.000	.00	.00	.000	1.53	5.06	.001
13.57	1.00	.00	.000	.00	53.53	.000	1.88	.00	.000	.00	.00	.000	1.52	4.50	.001
14. 1	1.00	.00	.000	.00	53.53	.000	1.88	.00	.000	.00	.00	.000	1.51	4.04	.001
14. 5	1.00	.00	.000	.00	53.53	.000	1.88	.00	.000	.00	.00	.000	1.51	4.15	.000
14. 9	1.00	.00	.000	.00	53.53	.000	1.88	.00	.000	.00	.00	.000	1.51	3.75	.000
14.13	1.00	.00	.000	.00	53.53	.000	1.88	.00	.000	.00	.00	.000	1.50	3.40	.000

BATTELLE -- TRANSPORT QUALITY MODEL RE-RUNS HYPOTHETICAL
2 FT PIPE SLOPE=0.005 2-HR HYDROGRAPH

WATER RESOURCES ENGINEERS, INC.
WALNUT CREEK, CALIFORNIA
STORM DRAINAGE QUALITY MODEL

TIME HISTORY OF SETTLEABLE SOLIDS

TIME HR, MIN	JUNCTION 201 FLOW CFS	JUNCTION 201 CONC MG/L	JUNCTION 201 EMISSION RATE LB/SEC	JUNCTION 202 FLOW CFS	JUNCTION 202 CONC MG/L	JUNCTION 202 EMISSION RATE LB/SEC	JUNCTION 203 FLOW CFS	JUNCTION 203 CONC MG/L	JUNCTION 203 EMISSION RATE LB/SEC	JUNCTION 204 FLOW CFS	JUNCTION 204 CONC MG/L	JUNCTION 204 EMISSION RATE LB/SEC	JUNCTION 205 FLOW CFS	JUNCTION 205 CONC MG/L	JUNCTION 205 EMISSION RATE LB/SEC
9,49	1,17	,02	,000	1,58	,20	,002	1,64	,00	,000	1,64	,00	,000	1,79	,00	,000
9,53	,58	,02	,000	1,43	,00	,000	1,60	,00	,000	1,72	,00	,000	2,00	,00	,000
9,57	1,01	,02	,000	1,24	,00	,000	1,55	,00	,000	1,66	,00	,000	1,59	,00	,000
10, 1	1,05	,00	,000	1,14	,00	,000	1,39	,00	,000	1,54	,10	,000	1,65	,00	,000
10, 5	1,17	,12	,000	1,12	,00	,000	1,27	,00	,000	1,41	,00	,000	1,66	,00	,000
10, 9	1,30	,93	,000	1,19	,12	,000	1,20	,01	,000	1,30	,00	,000	1,52	,00	,000
10,13	1,51	2,53	,000	1,23	,69	,000	1,18	,10	,000	1,23	,01	,000	1,38	,00	,000
10,17	1,80	6,25	,001	1,40	2,10	,000	1,23	,50	,000	1,20	,07	,000	1,28	,01	,000
10,21	2,37	10,71	,002	1,69	4,64	,001	1,36	1,59	,000	1,22	,32	,000	1,22	,07	,000
10,25	3,07	15,50	,003	2,16	8,76	,001	1,60	3,77	,000	1,31	1,64	,000	1,22	,25	,000
10,29	3,62	21,72	,005	2,83	13,60	,002	2,01	7,21	,001	1,50	2,62	,000	1,28	,53	,000
10,33	4,51	27,74	,008	3,71	19,30	,004	2,63	11,62	,002	1,85	5,41	,001	1,45	2,35	,000
10,37	5,55	33,50	,013	4,75	25,37	,008	3,50	17,30	,004	2,41	9,50	,001	1,76	4,93	,001
10,41	7,13	40,15	,018	5,61	31,70	,012	4,60	23,37	,007	3,23	14,71	,003	2,31	8,65	,001
10,45	8,26	46,47	,024	7,11	38,16	,017	5,84	29,80	,011	4,33	20,70	,006	3,17	13,97	,003
10,49	9,46	52,64	,031	8,31	44,72	,023	7,12	36,45	,016	5,62	27,17	,010	4,37	19,58	,005
10,53	10,67	59,26	,039	9,52	51,29	,030	8,36	43,19	,023	6,94	33,91	,015	5,78	26,55	,010
10,57	11,62	65,72	,049	10,73	57,88	,036	9,59	49,97	,030	8,25	40,61	,021	7,11	33,50	,015
11, 1	12,51	72,21	,058	11,89	64,49	,046	10,80	56,73	,038	9,55	47,76	,028	8,36	40,54	,021
11, 5	13,60	77,06	,067	12,90	71,04	,057	11,96	63,47	,047	10,65	54,72	,037	9,59	47,57	,028
11, 9	14,30	80,81	,073	13,81	76,43	,066	12,99	69,96	,057	12,07	61,64	,046	10,76	54,54	,037
11,13	14,72	81,72	,075	14,40	79,69	,072	13,79	75,24	,065	13,16	68,15	,056	11,90	61,36	,046
11,17	14,87	81,20	,075	14,74	81,01	,075	14,35	78,68	,070	13,96	73,62	,064	12,99	67,69	,055
11,21	14,85	79,71	,074	14,88	82,06	,075	14,68	80,31	,074	14,45	77,36	,070	13,62	72,93	,063
11,25	14,65	77,52	,071	14,85	79,66	,074	14,82	80,47	,074	14,78	79,42	,073	14,36	76,67	,069
11,29	14,46	74,62	,067	14,60	77,67	,071	14,79	79,52	,073	14,86	79,57	,074	14,67	78,62	,072
11,33	14,02	71,74	,063	14,30	75,13	,067	14,61	77,76	,071	14,81	79,34	,073	14,79	79,54	,073
11,37	13,45	68,30	,057	13,64	72,19	,063	14,30	75,40	,067	14,60	77,63	,071	14,74	79,10	,073
11,41	12,70	64,84	,051	13,35	68,98	,057	13,86	72,62	,063	14,26	75,68	,067	14,55	77,76	,071
11,45	11,75	61,21	,045	12,50	65,99	,052	13,25	69,56	,058	13,75	73,00	,062	14,22	75,76	,067
11,49	10,74	57,59	,039	11,60	62,12	,045	12,40	66,33	,052	13,15	70,16	,058	13,75	73,30	,063
11,53	9,71	54,00	,033	10,67	58,65	,039	11,57	63,00	,046	12,37	67,11	,052	13,12	70,52	,058
11,57	8,60	50,75	,027	9,65	55,20	,033	10,61	59,68	,040	11,46	63,94	,046	12,25	67,55	,052
12, 1	7,63	47,70	,023	8,63	52,09	,028	9,61	56,44	,034	10,45	60,76	,040	11,47	64,46	,046
12, 5	6,62	45,30	,019	7,62	49,21	,023	8,61	53,37	,029	9,50	57,69	,034	10,53	61,39	,040
12, 9	5,73	43,25	,015	6,66	46,75	,019	7,64	50,50	,024	8,52	54,77	,029	9,56	58,37	,035
12,13	5,00	41,20	,013	5,81	44,59	,016	6,72	48,11	,020	7,57	52,09	,025	8,60	55,45	,030
12,17	4,43	39,23	,011	5,10	42,57	,014	5,90	45,91	,017	6,65	49,67	,021	7,67	52,62	,025
12,21	3,57	37,17	,009	4,52	40,59	,011	5,20	43,86	,014	5,90	47,46	,017	6,81	50,37	,021
12,25	3,01	35,09	,008	4,00	38,61	,010	4,63	41,89	,012	5,22	45,46	,015	6,03	48,14	,018
12,29	3,22	33,01	,007	3,65	36,61	,008	4,17	39,94	,010	4,66	43,54	,013	5,35	46,06	,015
12,33	3,06	30,90	,006	3,35	34,61	,007	3,79	38,00	,009	4,20	41,67	,011	4,79	44,06	,013
12,37	2,85	28,95	,005	3,15	32,61	,006	3,48	36,05	,008	3,83	39,82	,010	4,31	42,17	,011
12,41	2,73	26,99	,005	2,95	30,64	,006	3,23	34,10	,007	3,55	37,98	,008	3,90	40,31	,009
12,45	2,62	25,10	,004	2,78	28,70	,005	3,01	32,16	,006	3,33	36,13	,008	3,47	38,52	,008
12,49	2,45	23,25	,004	2,64	26,62	,004	2,83	30,25	,005	3,12	34,27	,007	3,29	36,73	,007

BATTELLE -- TRANSPORT QUALITY MODEL REMOVALS HYPOTHETICAL
WATER RESOURCES ENGINEERS, INC.
WALNUT CREEK, CALIFORNIA
STORM DRAINAGE QUALITY MODEL

TIME HISTORY OF SETTLEABLE SOLIDS

	JUNCTION 226			JUNCTION 218			JUNCTION 211			JUNCTION
9.45	.00	.00	.000	7.43	.00	.000	7.43	.00	.000	
9.50	1.27	.00	.000	2.56	.00	.000	2.56	.00	.000	
9.57	1.57	.00	.000	1.54	.00	.000	1.54	.00	.000	
10. 1	1.72	.00	.000	1.78	.00	.000	1.78	.00	.000	
10. 5	1.75	.00	.000	1.77	.00	.000	1.77	.00	.000	
10. 9	1.75	.00	.000	1.75	.00	.000	1.75	.00	.000	
10.13	1.56	.00	.000	1.68	.00	.000	1.68	.00	.000	
10.17	1.46	.00	.000	1.58	.00	.000	1.58	.00	.000	
10.21	1.35	.01	.000	1.48	.00	.000	1.48	.00	.000	
10.25	1.32	.04	.000	1.39	.03	.000	1.39	.00	.000	
10.29	1.28	.17	.000	1.32	.16	.000	1.32	.02	.000	
10.33	1.31	.57	.000	1.36	.93	.000	1.38	.07	.000	
10.37	1.41	1.55	.000	1.34	10.32	.000	1.34	-.18	-.000	
10.41	1.74	3.54	.000	1.47	124.56	.011	1.47	-6.69	-.001	
10.45	2.34	6.88	.001	1.74	158.53	.017	1.74	-18.48	-.002	
10.49	2.86	11.51	.002	2.19	46.87	.006	2.19	-5.58	-.001	
10.53	3.61	17.67	.004	2.78	16.43	.003	2.78	0.65	.001	
10.57	5.27	23.39	.005	3.33	28.35	.004	3.33	12.62	.003	
11. 1	6.64	32.69	.013	3.88	26.74	.005	3.88	18.58	.005	
11. 5	8.48	37.28	.020	4.15	33.69	.006	4.15	25.69	.007	
11. 9	9.54	41.68	.028	4.41	48.58	.011	4.41	33.41	.005	
11.13	10.46	52.67	.034	4.60	48.35	.014	4.60	41.83	.012	
11.17	10.83	58.78	.036	4.65	55.43	.016	4.65	48.49	.014	
11.21	10.86	64.69	.043	4.67	61.81	.018	4.67	55.54	.016	
11.25	10.78	69.81	.048	4.70	67.21	.020	4.70	61.66	.018	
11.29	10.66	73.14	.045	4.74	71.44	.021	4.74	67.20	.020	
11.33	10.61	75.62	.052	4.78	74.54	.022	4.78	71.39	.021	
11.37	11.02	77.98	.053	4.81	76.45	.023	4.81	74.41	.022	
11.41	11.12	77.66	.054	4.85	77.46	.023	4.85	76.35	.023	
11.45	11.41	77.54	.054	4.86	77.68	.024	4.89	77.34	.024	
11.49	11.65	78.85	.054	4.91	77.26	.024	4.91	77.53	.024	
11.53	11.95	79.73	.054	4.94	78.35	.024	4.94	77.10	.024	
11.57	11.98	74.27	.053	4.95	79.85	.023	4.95	78.16	.024	
12. 1	11.96	74.58	.052	4.96	73.47	.023	4.96	74.65	.023	
12. 5	11.98	78.71	.052	4.96	71.68	.022	4.96	73.26	.023	
12. 9	11.94	68.71	.049	4.95	69.74	.022	4.95	71.47	.022	
12.13	11.68	66.63	.047	4.93	67.78	.021	4.93	69.54	.021	
12.17	11.36	64.49	.045	4.91	65.56	.020	4.91	67.51	.021	
12.21	11.05	62.21	.043	4.87	63.43	.019	4.87	65.41	.020	
12.25	10.67	59.67	.041	4.83	61.22	.018	4.83	63.26	.019	
12.29	10.23	57.72	.036	4.79	58.54	.018	4.79	61.06	.018	
12.33	10.08	55.17	.037	4.74	56.51	.017	4.74	58.79	.017	
12.37	10.02	54.15	.034	4.68	53.78	.016	4.68	56.34	.016	
12.41	9.85	48.61	.032	4.32	50.56	.014	4.32	53.68	.014	
12.45	4.51	45.74	.013	3.66	47.23	.011	3.66	50.52	.012	
12.49	3.93	42.57	.012	3.33	44.24	.009	3.33	48.48	.012	
12.53	3.69	41.54	.005	3.16	41.67	.008	3.16	45.37	.009	
12.57	3.61	38.42	.022	3.04	39.48	.007	3.04	42.68	.008	
13. 1	3.46	36.61	.007	2.95	37.32	.007	2.95	40.61	.007	

13. 5	2.56	34.57	.006	2.67	35.35	.006	2.87	38.52	.007
13. 9	2.77	32.64	.006	2.79	33.46	.006	2.79	36.56	.006
13.13	2.67	32.63	.005	2.72	31.62	.005	2.72	34.68	.006
13.17	2.62	29.05	.005	2.65	29.81	.005	2.65	32.67	.005
13.21	2.51	27.29	.004	2.57	28.03	.005	2.57	31.11	.005
13.25	2.42	25.57	.004	2.49	26.26	.004	2.49	29.39	.005
13.29	2.34	23.92	.003	2.40	24.37	.004	2.40	27.71	.004
13.33	2.27	22.29	.003	2.32	22.91	.003	2.32	26.07	.004
13.37	2.21	20.74	.003	2.26	21.32	.003	2.26	24.48	.003
13.41	2.16	19.27	.003	2.20	19.80	.003	2.20	22.93	.003
13.45	2.12	17.67	.002	2.15	18.36	.002	2.15	21.43	.003
13.49	2.09	16.54	.002	2.11	17.00	.002	2.11	19.99	.003
13.53	2.06	15.29	.002	2.08	15.71	.002	2.08	18.61	.002
13.57	2.03	14.12	.002	2.05	14.51	.002	2.05	17.30	.002
14. 1	2.01	13.02	.002	2.03	13.37	.002	2.03	16.05	.002
14. 5	1.99	11.99	.001	2.01	12.32	.002	2.01	14.87	.002
14. 9	1.98	11.03	.001	1.99	11.33	.001	1.99	13.75	.002
14.13	1.96	10.13	.001	1.97	10.41	.001	1.97	12.70	.002

BATTELLE -- TRANSPORT QUALITY MODEL REMARKS HYPOTHETICAL
2 FT PIPE SLOPE=.005 2-PM PSYCHROMART

WATER RESOURCES ENGINEERS, INC.
WALNUT CREEK, CALIFORNIA
STEAM CHANNEL QUALITY MODEL

TIME HISTORY OF ECD

TIME HR. MIN	JUNCTION 101 FLOW CFS	JUNCTION 101 CONC MG/L	JUNCTION 101 EMISSION RATE LB/SEC	JUNCTION 102 FLOW CFS	JUNCTION 102 CONC MG/L	JUNCTION 102 EMISSION RATE LB/SEC	JUNCTION 103 FLOW CFS	JUNCTION 103 CONC MG/L	JUNCTION 103 EMISSION RATE LB/SEC	JUNCTION 104 FLOW CFS	JUNCTION 104 CONC MG/L	JUNCTION 104 EMISSION RATE LB/SEC	JUNCTION 105 FLOW CFS	JUNCTION 105 CONC MG/L	JUNCTION 105 EMISSION RATE LB/SEC
0.49	1.77	100.00	.011	1.66	100.00	.010	1.65	100.00	.010	1.65	100.00	.010	1.63	100.00	.010
0.53	1.53	100.00	.012	1.65	100.00	.010	1.70	100.00	.011	1.77	100.00	.011	1.75	100.00	.011
0.57	1.52	100.00	.012	1.52	100.00	.010	1.86	100.00	.012	1.82	100.00	.011	1.83	100.00	.011
1.01	1.54	99.58	.012	1.53	99.90	.010	1.51	100.00	.010	1.88	100.00	.012	1.84	100.00	.011
1.05	2.32	93.33	.014	1.58	97.45	.010	1.93	99.75	.012	1.85	99.55	.011	1.80	100.00	.011
1.09	3.31	86.67	.018	2.32	92.30	.013	2.01	98.62	.012	1.82	99.73	.011	1.89	99.58	.011
1.13	4.56	80.00	.023	3.08	85.85	.017	2.30	94.81	.013	2.01	98.40	.012	1.96	99.25	.011
1.17	5.82	73.33	.027	4.24	79.12	.021	2.53	88.14	.013	2.26	99.21	.012	2.04	98.78	.011
1.21	7.02	66.67	.029	5.62	72.35	.025	3.98	81.47	.020	2.58	98.19	.012	2.27	98.22	.011
1.25	8.11	60.00	.030	6.95	65.81	.028	5.38	74.58	.025	3.75	97.72	.014	2.75	97.72	.010
1.29	9.22	53.33	.031	8.17	58.81	.030	6.87	67.60	.026	5.66	96.81	.014	3.71	95.56	.010
1.33	10.35	46.67	.030	9.29	51.65	.030	8.22	60.50	.031	6.65	95.24	.015	5.02	93.56	.010
1.37	11.49	40.00	.029	10.40	44.80	.026	9.41	53.30	.031	8.15	92.55	.016	7.55	91.35	.010
1.41	12.63	33.33	.026	11.54	37.96	.027	10.51	46.23	.030	9.47	88.88	.030	8.85	88.88	.010
1.45	13.76	26.67	.023	12.70	31.15	.025	11.62	39.18	.028	10.84	87.52	.030	9.44	86.02	.010
1.49	14.88	20.00	.019	13.86	24.35	.021	12.77	32.21	.028	11.77	86.05	.026	10.85	85.06	.010
1.53	16.02	13.33	.013	14.99	17.57	.016	13.93	25.29	.022	12.58	83.48	.027	11.64	83.06	.010
1.57	17.12	6.67	.007	16.12	10.79	.011	15.27	18.35	.017	14.64	80.20	.042	12.56	80.06	.010
2. 1	18.22	.83	.001	17.22	4.42	.005	16.21	11.53	.012	15.10	15.32	.018	14.13	77.06	.010
2. 5	18.16	6.67	.008	18.03	5.15	.006	17.20	6.34	.007	16.31	14.44	.013	15.08	75.11	.010
2. 9	17.10	13.33	.014	17.69	5.89	.011	17.85	6.45	.007	17.25	7.52	.009	16.20	12.44	.010
2.13	15.52	20.00	.020	16.99	15.80	.017	17.66	10.80	.011	17.72	7.57	.009	17.18	5.47	.010
2.17	14.78	26.67	.025	15.65	22.21	.022	16.85	15.38	.016	17.82	16.24	.011	17.91	8.87	.009
2.21	13.66	33.33	.028	14.78	28.66	.026	15.75	21.24	.021	16.78	14.51	.010	17.48	16.71	.010
2.25	12.54	40.00	.031	13.67	35.18	.030	14.61	27.48	.025	15.67	66.46	.026	16.82	16.66	.010
2.29	11.41	46.67	.033	12.45	41.66	.032	13.49	33.74	.028	14.54	22.21	.024	15.84	16.66	.010
2.33	10.26	53.33	.034	11.24	48.11	.034	12.37	40.03	.031	13.41	34.37	.027	14.43	25.26	.010
2.37	9.18	60.00	.034	10.23	54.52	.035	11.28	46.27	.033	12.26	28.45	.026	13.24	26.58	.010
2.41	8.07	66.67	.034	9.13	60.89	.035	10.17	52.44	.033	11.16	44.45	.031	12.06	26.82	.010
2.45	6.96	73.33	.032	8.05	67.18	.034	9.09	58.53	.033	10.11	56.45	.032	11.13	46.95	.010
2.49	5.86	80.00	.029	6.97	73.39	.034	8.03	64.50	.032	9.15	52.45	.030	10.18	47.38	.010
2.53	4.76	86.67	.026	5.98	79.46	.025	6.98	70.32	.031	8.01	61.67	.031	9.01	52.67	.010
2.57	3.68	93.33	.021	4.85	85.34	.026	5.95	75.92	.026	6.95	67.66	.025	8.00	55.25	.010
3. 1	2.62	99.58	.010	3.83	90.76	.022	4.94	81.22	.025	5.95	70.45	.027	7.04	56.58	.010
3. 5	2.44	100.00	.012	2.91	94.32	.017	3.97	85.62	.021	5.02	77.57	.024	6.03	60.48	.010
3. 9	1.86	100.00	.012	2.33	96.57	.014	3.10	89.67	.018	4.16	81.51	.021	5.16	74.61	.009
3.13	1.85	100.00	.012	2.03	98.00	.012	2.58	92.00	.015	3.38	85.77	.018	4.27	77.16	.011
3.17	1.86	100.00	.012	1.91	98.86	.012	2.21	94.68	.013	2.76	88.54	.015	3.55	81.28	.010
3.21	1.87	100.00	.012	1.87	99.35	.012	2.01	96.69	.012	2.36	91.05	.014	2.95	83.67	.010
3.25	1.88	100.00	.012	1.86	99.63	.012	1.91	97.88	.012	2.13	92.58	.012	2.58	87.64	.010
3.29	1.88	100.00	.012	1.87	99.76	.012	1.87	98.69	.012	1.98	93.74	.012	2.45	90.07	.010
3.33	1.88	100.00	.012	1.87	99.80	.012	1.86	99.10	.012	1.90	97.87	.011	2.15	90.56	.010
3.37	1.88	100.00	.012	1.88	99.83	.012	1.87	99.48	.012	1.87	98.64	.011	1.96	94.27	.010
3.41	1.88	100.00	.012	1.88	99.86	.012	1.87	99.68	.012	1.88	98.85	.011	1.86	97.02	.010
3.45	1.88	100.00	.012	1.88	99.88	.012	1.86	99.80	.012	1.88	99.14	.011	1.86	97.34	.010
3.49	1.88	100.00	.012	1.88	99.89	.012	1.88	99.88	.012	1.87	99.44	.011	1.88	98.12	.010

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12.53	1.88	100.00	.012	1.88	99.99	.012	1.88	99.93	.012	1.87	99.84	.012	1.87	[illegible]	.012
12.57	1.88	100.00	.012	1.88	100.00	.012	1.88	99.98	.012	1.88	99.77	.012	1.88	[illegible]	.012
13. 1	1.88	100.00	.012	1.88	100.00	.012	1.88	99.97	.012	1.88	99.85	.012	1.88	[illegible]	.012
13. 5	1.88	100.00	.012	1.88	100.00	.012	1.88	99.98	.012	1.88	99.91	.012	1.88	[illegible]	.012
13. 9	1.88	100.00	.012	1.88	100.00	.012	1.88	99.99	.012	1.88	99.94	.012	1.88	[illegible]	.012
13.13	1.88	100.00	.012	1.88	100.00	.012	1.88	99.99	.012	1.88	99.98	.012	1.88	[illegible]	.012
13.17	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	99.99	.012	1.88	[illegible]	.012
13.21	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	99.99	.012	1.88	[illegible]	.012
13.25	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	99.99	.012	1.88	[illegible]	.012
13.29	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	99.99	.012	1.88	[illegible]	.012
13.33	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	[illegible]	.012
13.37	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	[illegible]	.012
13.41	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	[illegible]	.012
13.45	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012
13.49	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012
13.53	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012
13.57	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012
14. 1	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012
14. 5	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012
14. 9	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012
14.13	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012	1.88	100.00	.012

08/13/75 1014.815 ALJAME 22252[illegible] [illegible] 1 [illegible]

BATTELLE -- TRANSPORT QUALITY MODEL RE-RUNS HYPOTHETICAL
2 FT PIPE SLOPE=0.005 2-HR HYDROGRAPH

WATER RESOURCES ENGINEERS, INC.
WALNUT CREEK, CALIFORNIA
STORM DRAINAGE QUALITY MODEL

* T I M E H I S T O R Y O F *
P C B

TIME HR . MIN	JUNCTION 120 FLOW CFS	CONC MG/L	EMISSION RATE LB/SEC	JUNCTION 221 FLOW CFS	CONC MG/L	EMISSION RATE LB/SEC	JUNCTION 32[illegible] FLOW CFS	CONC MG/L	EMISSION RATE LB/SEC
9.49	1.83	100.00	.010	.00	100.00	.000	1.76	100.00	.011
9.53	1.79	100.00	.011	.00	100.00	.000	1.55	100.00	.010
9.57	1.83	100.00	.011	.00	100.00	.000	1.55	100.00	.010
10. 1	1.84	100.00	.012	.00	100.00	.000	1.54	99.50	.010
10. 5	1.86	100.00	.012	.00	100.00	.000	2.30	93.33	.014
10. 9	1.89	100.00	.012	.00	100.00	.000	3.35	86.67	.018
10.13	1.92	99.97	.012	.00	100.00	.000	4.52	80.00	.023
10.17	2.02	99.76	.013	.00	100.00	.000	5.74	73.33	.026
10.21	2.27	98.90	.014	.00	100.00	.000	6.90	66.67	.029
10.25	2.79	96.41	.017	.00	100.00	.000	8.15	60.00	.031
10.29	3.71	91.28	.021	.00	100.00	.000	9.30	53.33	.031
10.33	5.02	83.56	.026	.00	99.96	.000	10.45	46.67	.030
10.37	6.55	75.11	.031	.00	99.63	.000	11.50	40.00	.029
10.41	8.25	67.06	.034	.00	98.62	.000	12.70	33.33	.028
10.45	9.42	59.26	.035	.00	96.73	.000	13.81	26.67	.023
10.49	10.65	51.55	.034	.00	93.81	.000	14.92	20.00	.019
10.53	11.82	43.51	.032	.00	89.86	.000	16.01	13.33	.013
10.57	12.96	36.37	.029	.00	84.97	.000	17.10	6.67	.007
11. 1	14.13	28.67	.026	.00	79.26	.000	18.10	.03	.001
11. 5	15.26	21.07	.021	.00	73.08	.000	18.02	6.67	.008
11. 9	16.26	14.59	.015	.00	67.06	.000	17.03	13.33	.014
11.13	17.10	9.65	.010	.00	61.75	.000	15.93	20.00	.020
11.17	17.51	8.25	.009	.00	57.30	.000	14.81	26.67	.025
11.21	17.26	9.76	.011	.00	53.55	.000	13.69	33.33	.028
11.25	16.52	13.00	.013	.00	51.37	.000	12.57	40.00	.031
11.29	15.52	17.43	.017	.00	49.49	.000	11.40	46.67	.032
11.33	14.43	22.47	.020	.00	48.20	.000	10.34	53.33	.034
11.37	13.32	28.14	.023	.00	47.35	.000	9.20	60.00	.035
11.41	12.22	34.27	.026	.00	46.85	.000	8.11	66.67	.034
11.45	11.13	40.44	.028	.00	46.58	.000	6.90	73.33	.030
11.49	10.07	46.31	.029	.00	46.48	.000	5.80	80.00	.026
11.53	9.01	51.83	.029	.00	46.48	.000	4.70	86.67	.020
11.57	8.02	57.08	.028	.00	46.47	.000	3.67	93.33	.021
12. 1	7.02	62.08	.027	.00	46.47	.000	2.80	99.50	.018
12. 5	6.03	66.76	.025	.00	46.47	.000	1.97	100.00	.016
12. 9	5.10	71.09	.023	.00	46.47	.000	1.89	100.00	.010
12.13	4.26	74.96	.020	.00	46.47	.000	1.83	100.00	.011
12.17	3.55	78.42	.017	.00	46.47	.000	1.83	100.00	.011
12.21	2.99	81.51	.015	.00	46.47	.000	1.81	100.00	.011
12.25	2.58	84.32	.014	.00	46.47	.000	1.84	100.00	.011
12.29	2.25	86.90	.012	.00	46.47	.000	1.84	100.00	.010
12.33	2.10	89.25	.012	.00	46.47	.000	1.85	100.00	.010
12.37	1.99	91.37	.011	.00	46.47	.000	1.85	100.00	.010
12.41	1.92	93.24	.011	.00	46.47	.000	1.86	100.00	.010
12.45	1.89	94.83	.011	.00	46.47	.000	1.86	100.00	.010
12.49	1.88	96.14	.011	.00	46.47	.000	1.88	100.00	.010

TIME HR . MIN	JUNCTION [illegible] FLOW CFS	CONC MG/L	EMISSION RATE LB/SEC	JUNCTION [illegible] FLOW CFS	CONC MG/L	EMISSION RATE LB/SEC
9.49	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9.53	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9.57	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10. 1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10. 5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10. 9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10.13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10.17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10.21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10.29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10.33	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10.37	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10.41	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10.45	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10.49	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10.53	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10.57	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11. 1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11. 5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11. 9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11.13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11.17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11.21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11.29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11.33	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11.37	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11.41	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11.45	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11.49	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11.53	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11.57	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12. 1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12. 5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12. 9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12.13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12.17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12.21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12.29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12.33	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12.37	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12.41	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12.45	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12.49	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

BATTELLE -- TRANSPORT QUALITY MODEL RE-RUNS HYPOTHETICAL
2 FT PIPE SLOPE=0.005 2-HR HYDROGRAPH

WATER RESOURCES ENGINEERS, INC.
WALNUT CREEK, CALIFORNIA
STORM DRAINAGE QUALITY MODEL

TIME HISTORY OF BOD

TIME HR. MIN	JUNCTION 201 FLOW CFS	JUNCTION 201 CONC MG/L	JUNCTION 201 EMISSION RATE LB/SEC	JUNCTION 202 FLOW CFS	JUNCTION 202 CONC MG/L	JUNCTION 202 EMISSION RATE LB/SEC	JUNCTION 203 FLOW CFS	JUNCTION 203 CONC MG/L	JUNCTION 203 EMISSION RATE LB/SEC
9.45	1.17	100.00	.007	1.58	100.00	.010	1.64	100.00	.010
9.53	.56	100.00	.003	1.43	100.00	.009	1.60	100.00	.010
9.57	1.01	100.00	.006	1.24	100.00	.008	1.55	100.00	.010
10. 1	1.25	100.00	.007	1.14	100.00	.007	1.36	100.00	.009
10. 5	1.17	99.88	.007	1.12	100.00	.007	1.27	100.00	.008
10. 9	1.30	99.07	.008	1.15	99.80	.007	1.22	99.99	.007
10.13	1.51	97.07	.009	1.23	99.31	.008	1.18	99.60	.007
10.17	1.88	93.75	.011	1.40	97.64	.009	1.23	99.50	.008
10.21	2.37	89.29	.013	1.69	95.16	.010	1.36	98.41	.008
10.25	3.07	84.22	.016	2.16	91.24	.012	1.60	96.23	.010
10.29	3.92	78.28	.019	2.83	86.32	.015	2.01	92.79	.012
10.33	4.91	72.26	.022	3.71	80.70	.019	2.63	88.10	.014
10.37	5.99	66.10	.025	4.75	74.63	.022	3.50	82.78	.018
10.41	7.13	59.85	.027	5.91	68.30	.025	4.60	76.63	.022
10.45	8.30	53.53	.028	7.11	61.82	.027	5.84	70.20	.026
10.49	9.49	47.16	.028	8.31	55.28	.029	7.12	63.59	.028
10.53	10.67	40.74	.027	9.52	48.71	.029	8.36	56.81	.030
10.57	11.62	34.28	.025	10.73	42.12	.028	9.59	50.03	.030
11. 1	12.91	27.79	.022	11.89	35.51	.026	10.80	43.27	.029
11. 5	13.60	22.12	.019	12.96	28.96	.023	11.96	36.53	.027
11. 9	14.38	19.16	.017	13.81	23.57	.020	12.99	30.04	.024
11.13	14.72	18.28	.017	14.40	20.31	.018	13.79	24.76	.021
11.17	14.87	18.80	.017	14.74	18.99	.017	14.35	21.22	.019
11.21	14.85	20.29	.019	14.88	19.14	.018	14.68	19.66	.018
11.25	14.69	22.48	.021	14.85	20.35	.019	14.82	19.53	.018
11.29	14.40	25.18	.023	14.68	22.33	.020	14.79	20.40	.019
11.33	14.00	28.26	.025	14.36	24.87	.022	14.61	22.24	.020
11.37	13.45	31.62	.027	13.94	27.81	.024	14.30	24.60	.022
11.41	12.68	35.16	.028	13.35	31.02	.026	13.86	27.30	.024
11.45	11.75	38.79	.028	12.58	34.41	.027	13.25	30.44	.025
11.49	10.74	42.41	.028	11.66	37.88	.028	12.40	33.67	.026
11.53	9.71	45.94	.028	10.67	41.35	.028	11.57	37.00	.027
11.57	8.66	49.25	.027	9.65	44.72	.027	10.61	40.32	.027
12. 1	7.63	52.24	.025	8.63	47.91	.026	9.61	43.56	.026
12. 5	6.62	54.70	.023	7.62	50.79	.024	8.61	46.63	.025
12. 9	5.73	56.75	.020	6.66	53.25	.022	7.64	49.42	.024
12.13	5.00	58.74	.018	5.81	55.41	.020	6.72	51.89	.022
12.17	4.43	60.77	.017	5.10	57.43	.018	5.90	54.05	.020
12.21	3.97	62.83	.016	4.52	59.41	.017	5.20	56.14	.018
12.25	3.61	64.91	.015	4.06	61.39	.016	4.63	58.11	.017
12.29	3.32	66.99	.014	3.69	63.39	.015	4.17	60.06	.016
12.33	3.09	69.04	.013	3.39	65.39	.014	3.79	62.00	.015
12.37	2.89	71.05	.013	3.15	67.39	.013	3.48	63.95	.014
12.41	2.73	73.01	.012	2.95	69.36	.013	3.23	65.90	.013
12.45	2.60	74.90	.012	2.78	71.30	.012	3.01	67.84	.013
12.49	2.49	76.71	.012	2.64	73.16	.012	2.83	69.75	.012

TIME HR. MIN	JUNCTION 204 FLOW CFS	JUNCTION 204 CONC MG/L	JUNCTION 204 EMISSION RATE LB/SEC	JUNCTION 205 FLOW CFS	JUNCTION 205 CONC MG/L	JUNCTION 205 EMISSION RATE LB/SEC
9.45	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9.53	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9.57	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10. 1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10. 5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10. 9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10.13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10.17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10.21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10.29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10.33	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10.37	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10.41	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10.45	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10.49	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10.53	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10.57	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11. 1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11. 5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11. 9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11.13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11.17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11.21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11.29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11.33	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11.37	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11.41	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11.45	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11.49	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11.53	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11.57	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12. 1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12. 5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12. 9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12.13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12.17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12.21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12.29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12.33	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12.37	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12.41	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12.45	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12.49	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

12,53	2,40	76,44	,012	2,53	75,91	,012	2,68	71,63	,011	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12,57	2,32	82,07	,012	2,43	78,77	,012	2,58	73,46	,011	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13, 1	2,26	81,61	,012	2,35	78,45	,012	2,48	75,23	,011	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13, 5	2,20	83,06	,011	2,28	80,85	,011	2,38	76,54	,011	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13, 9	2,16	84,41	,011	2,23	81,56	,011	2,31	78,58	,011	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13,13	2,12	85,67	,011	2,18	82,98	,011	2,25	80,14	,011	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13,17	2,08	86,85	,011	2,13	84,32	,011	2,19	81,62	,011	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13,21	2,05	87,93	,011	2,10	85,57	,011	2,15	83,02	,011	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13,25	2,03	88,94	,011	2,07	86,73	,011	2,11	84,34	,011	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13,29	2,01	89,87	,011	2,04	87,82	,011	2,08	85,57	,011	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13,33	1,99	90,72	,011	2,02	88,82	,011	2,05	86,72	,011	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13,37	1,97	91,51	,011	2,00	89,75	,011	2,02	87,79	,011	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13,41	1,96	92,24	,011	1,98	90,61	,011	2,00	88,75	,011	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13,45	1,95	92,92	,011	1,97	91,40	,011	1,99	89,71	,011	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13,49	1,94	93,51	,011	1,96	92,13	,011	1,97	90,57	,011	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13,53	1,93	94,07	,011	1,95	92,81	,011	1,96	91,36	,011	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13,57	1,92	94,59	,011	1,94	93,42	,011	1,95	92,09	,011	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14, 1	1,92	95,06	,011	1,93	93,99	,011	1,94	92,76	,011	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14, 5	1,91	95,49	,011	1,92	94,51	,011	1,93	93,38	,011	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14, 9	1,91	95,88	,011	1,92	94,98	,011	1,92	93,94	,011	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14,13	1,90	96,24	,011	1,91	95,42	,011	1,92	94,46	,011	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

08/13/75 1014/115 AEJNNE 000526052 200526 1 127 DATE [illegible] PAGE 7.

BATTELLE -- TRANSIENT QUALITY MODEL RE-RUNS HYPOTHETICAL
2 FT PIPE SLOPE=2.005 2-HR HYDROGRAPH

WATER RESOURCES ENGINEERS, INC.
WALNUT CREEK, CALIFORNIA
STORM DRAINAGE QUALITY MODEL

* T I M E H I S T O R Y O F *
* B O D *

	JUNCTION 200			JUNCTION 210			JUNCTION 211			JUNCTION
9,45	,05	100,00	,005	7,43	100,00	,046	7,43	100,00	,046	
9,53	1,27	100,00	,008	2,56	100,00	,015	2,56	100,00	,016	
9,57	1,57	100,00	,010	1,54	100,00	,012	1,54	100,00	,012	
10, 1	1,72	100,00	,011	1,70	100,00	,011	1,70	100,00	,011	
10, 5	1,75	100,00	,011	1,77	100,00	,011	1,77	100,00	,011	
10, 9	1,69	100,00	,011	1,75	100,00	,011	1,75	100,00	,011	
10,13	1,62	100,00	,010	1,68	100,00	,010	1,68	100,00	,010	
10,17	1,49	100,00	,009	1,58	100,00	,010	1,58	100,00	,010	
10,21	1,35	99,99	,009	1,48	100,00	,006	1,48	100,00	,006	
10,25	1,32	99,96	,008	1,39	99,96	,005	1,39	100,00	,005	
10,29	1,28	99,83	,008	1,32	99,77	,008	1,32	99,50	,008	
10,33	1,31	99,43	,008	1,30	98,99	,007	1,30	100,03	,008	
10,37	1,41	98,45	,009	1,34-261,17		-,022	1,34	100,00	,006	
10,41	1,64	96,46	,010	1,47********		-,228	1,47	256,36	,023	
10,45	2,04	93,12	,012	1,74********		-,342	1,74	527,42	,087	
10,49	2,59	88,49	,014	2,19-695,95		-,695	2,19	259,20	,042	
10,53	3,61	82,53	,019	2,75	46,46	,008	2,75	100,50	,016	
10,57	5,27	76,70	,025	3,33	79,27	,017	3,33	87,62	,010	
11, 1	6,54	69,91	,030	3,88	73,26	,017	3,88	81,63	,016	
11, 5	8,48	62,72	,033	4,15	66,31	,017	4,15	74,62	,019	
11, 9	9,54	55,32	,034	4,41	59,02	,016	4,41	66,59	,010	
11,13	10,48	48,00	,031	4,60	51,65	,015	4,60	58,67	,017	
11,17	10,53	41,22	,027	4,65	44,57	,013	4,65	51,51	,015	
11,21	10,60	35,31	,023	4,67	38,19	,011	4,67	44,40	,013	
11,25	10,72	30,49	,020	4,70	32,76	,010	4,70	38,14	,011	
11,29	10,80	26,80	,018	4,74	28,56	,008	4,74	32,80	,012	
11,33	10,91	24,38	,017	4,78	25,50	,008	4,78	28,61	,026	
11,37	11,02	22,92	,016	4,81	23,55	,007	4,81	25,59	,008	
11,41	11,12	22,34	,016	4,85	22,54	,007	4,85	23,65	,007	
11,45	11,21	22,46	,016	4,89	22,32	,007	4,89	22,66	,007	
11,49	11,29	23,15	,016	4,91	22,74	,007	4,91	22,47	,007	
11,53	11,35	24,27	,017	4,94	23,65	,007	4,94	22,50	,007	
11,57	11,38	25,73	,018	4,95	24,95	,008	4,95	23,04	,007	
12, 1	11,39	27,42	,020	4,96	26,53	,008	4,96	25,15	,008	
12, 5	11,38	29,29	,021	4,96	28,32	,009	4,96	26,74	,008	
12, 9	11,34	31,29	,022	4,95	30,26	,009	4,95	28,53	,006	
12,13	11,28	33,37	,023	4,93	32,30	,010	4,93	30,40	,006	
12,17	11,19	35,51	,025	4,91	34,41	,011	4,91	32,49	,010	
12,21	11,09	37,69	,026	4,87	36,57	,011	4,87	34,59	,011	
12,25	10,97	39,93	,027	4,83	38,78	,012	4,83	36,74	,011	
12,29	10,83	42,28	,029	4,79	41,00	,012	4,79	38,94	,012	
12,33	10,68	44,63	,030	4,74	43,49	,013	4,74	41,21	,012	
12,37	10,52	47,01	,031	4,60	46,22	,014	4,60	43,60	,013	
12,41	6,65	51,19	,021	4,32	49,42	,013	4,32	46,32	,012	
12,45	4,51	54,30	,015	3,66	52,77	,012	3,66	46,00	,011	
12,49	3,83	57,03	,014	3,33	55,76	,012	3,33	51,52	,011	
12,53	3,48	59,42	,013	3,16	58,33	,011	3,16	54,63	,011	
12,57	3,25	61,58	,012	3,04	60,60	,012	3,04	57,12	,011	
13, 1	3,06	63,59	,012	2,95	62,08	,012	2,95	56,39	,011	

13, 5	2,90	65,50	,012	2,67	64,65	,012	2,67	61,48	,011
13, 9	2,77	67,36	,012	2,75	66,54	,012	2,75	63,44	,011
13,13	2,67	69,17	,012	2,72	68,38	,012	2,72	65,32	,011
13,17	2,60	70,95	,012	2,65	70,19	,012	2,65	67,13	,011
13,21	2,51	72,71	,011	2,57	71,97	,012	2,57	68,89	,011
13,25	2,42	74,43	,011	2,49	73,72	,011	2,49	70,61	,011
13,29	2,34	76,10	,011	2,40	75,43	,011	2,40	72,29	,011
13,33	2,27	77,71	,011	2,32	77,09	,011	2,32	73,93	,011
13,37	2,21	79,26	,011	2,26	78,68	,011	2,26	75,52	,011
13,41	2,16	80,73	,011	2,20	80,20	,011	2,20	77,07	,011
13,45	2,12	82,13	,011	2,15	81,64	,011	2,15	78,57	,011
13,49	2,05	83,46	,011	2,11	83,02	,011	2,11	80,01	,011
13,53	2,06	84,71	,011	2,08	84,29	,011	2,08	81,39	,011
13,57	2,03	85,88	,011	2,05	85,49	,011	2,05	82,70	,011
14, 1	2,01	86,98	,011	2,03	86,63	,011	2,03	83,95	,011
14, 5	1,99	88,01	,011	2,01	87,68	,011	2,01	85,13	,011
14, 9	1,98	88,97	,011	1,99	88,67	,011	1,99	86,25	,011
14,13	1,96	89,87	,011	1,97	89,59	,011	1,97	87,30	,011

*FIN